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F. W. Van Kirk, Editor

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Contributors

Abel, F. C. F., Chicago, Ill.
Allen, W. J., Beloit, Wis.
Andrews, M. P., Beloit, Wis.
Bennett, H. C., Lima, Ohio.
Buckmaster, S. B., Janesville, Wis.
Burdick, G. G., Chicago, Ill.
Burnett, J. A., Hartshorne, Okla.
Briney, W. F., Chicago, Ill.
Canan, C. W., Orkney Springs, Va.
Casseday, F. F., Portland, Ore.
Davis, F. P., Enid, Okla.
Drueck, C. J., Chicago, Ill.
Fish, E. T., Milwaukee, Wis.
Holmes, B., Chicago, Ill.
Hopkins, R. B., Milton, Del.
Jones, Z. G., Kansas City, Mo.
Leech, W. S., Roseau, Minn.
Lockhardt, J. W., St. Johns, Wash.
Marrs, W. T., Peoria Ill.
Martin, M., Dallas, Texas.
Nuzum, T. W., Janesville, Wis.
Pember, J. T., Janesville, Wis.
Sawyer, Amos, Hillsboro, Ill.
Servoss, Geo. L., Gardnerville, Nev.
Smith, R. J., Bancroft, Idaho.
Spawn, M. G., Beloit, Wis.
VanKirk, Frank W., Janesville, Wis.
Waugh, Wm. F., Chicago, Ill.
Westlind, O. W., Duluth, Minn.
Wolfe, J. L., Cedar Falls, Iowa.

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CHEMICAL COMPOSITION OF FOODS

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

As a rule, when treating the above subject, most authorities confine themselves to the so-called proximate principles—proteins, fats and carbohydrates. While it is true that these probably determine to a large extent the food value of a certain substance, yet it seems as if more attention should be paid to other constituents of food, which, as long as they are present, must have either a beneficial or a harmful effect when ingested. These constituents, or salts as they are usually called, exist in all foods, animal and vegetable, and it is our opinion that while some of them may be inocuous, a great many are really needed by the organism while still others are undoubtedly injurious. To the latter belong the various organic salts or extractives in animal food.

Food substances are taken both from the animal and vegetable kingdoms. While in our opinion the former could well be dispensed with, yet owing to their wide-spread use, it will be necessary to consider them, if only to call attention to their various harmful features.

The chief foods of animal origin are the flesh of mammals, birds, reptiles and fishes, the eggs of various species, and the lacteal secretion or milk of some mammals, as well as various other products made from the latter, the most important of these being cheese and butter. We shall not take into consideration the eating of animals lower in the scale than vertebrates, as, with the possible exception of oysters, and other shell-fish, this is confined usually to individuals of depraved tastes.

Meat.—Statistics show that 327 varieties of animals furnish their flesh as food to the human race, these being 47 mammals, 105 birds, 7 reptiles, 110 fishes, and 58 invertebrates. Some of these are of course uncommon. As a rule the most commonly used meat is that of the herbivorous animals, particularly the beef family and sheep. The hog is also a common article of diet. Several varieties of poultry and a number of fish make up the list of the common varieties.

As is well known, meat is considered chiefly valuable for the protein it contains. Besides this, all meats are comparatively rich in fats. Carbohydrates exist in such small quantities, as to be negligible, except in liver, which contains more or less glycogen and glucose. The principal proteins are myosin, from the muscle fibers, and albumin. The flesh of young animals is also comparatively rich in gelatin. To a certain extent, the comparative amount of fat determines the digestibility of the meat, it being closely packed around the muscle fibers, pre-

venting the ready access of the gastric juice to the myosin.

Comparative analyses show that the flesh of poultry is the richest and that of fish the poorest in protein. In fat the goose ranks the highest, the pig next, and fish the lowest. The proportion of solids to water is fairly constant, but here again we find the least water in poultry and the most in fish.

The salts of meat are principally nitrogenous extractives, such as creatin, creatinine, sarcine, xanthin, inosin, uric acid and urea. All of these are injurious when ingested, being similar in their physiological action to the vegetable stimulants. After death the reaction of the flesh, which was neutral during life, becomes acid, from the formation of sarcolactic acid. Besides the organic salts so far named, small quantities of inorganic salts, principally sodium chloride and phosphate, and calcium and magnesium phosphate, are present. Sodium chloride is present in excessive quantites in smoked and salted meats.

After a while when putrefactive changes begin in the meat. still other substances are formed. These products of bacterial activity are known as ptomaines, and have been fully considered in another chapter.

Lastly, as putrefatcion becomes more marked, various ill-smelling gases and other compounds make their appearance, which usually serve the purpose of making the meat unedible. The common practice of keeping some kinds of game until a distinct odor developes, such as venison and wild ducks, the so-called gamy flavor, cannot be too strongly condemned.

The additional possibiltiy of the presence in the meat of the germs of infectious diseases or their toxins has also been fully considered in another place. This constitutes a serious objection to the eating of meat. The various animal parasites liable to be present, like echinococcus, trichina, etc., furnish additional objections.

Eggs.—These, while a perfect food for the developing bird, by no means fill this requirement for the human species, being too deficient in carbohydrates. The white is a richly albuminous fluid containing 12% of egg-albumin, with about ½% of sugar and inorganic salts and traces of egg globulin, lecithin and cholesterin. The yolk solids consist practically of globules of vitellin, a nucleo-proteid, either free or in combination with fat and a lipochrome (hence the yellow color). Traces of sugar, lecithin, cholesterin and salts are also present. The eggs of the common hen are used most, but do not differ greatly in composition and food-value from those of other birds. The longer an egg is cooked the more insoluble do its protein constituents become.

Eggs readily putrefy, with the copious evolution of hydrogen sulphide. Ptomaines may be found during this process. As a rule, however, owing to the protection of the shell, eggs keep longer than other animal food. Hence the extreme age of some when finally released from cold storage. The shell of eggs is nearly pure calcium carbonate.

Milk.—This secretion, like eggs, has been much over-rated as a food. While it forms a nearly perfect food for the immature animal, it is absolutely unsuited to the needs of the adult, especially of another species. To ensue the proper supply of nitrogen and carbon, vast quantities would have to be consumed. It also contains too little iron. Late-weaned children are often anaemic.

Its composition is as follows, taking cow's milk as an example. Proteids (chiefly caseinogen, with smaller amounts of lactalbumin and lactoglobulin) 4%, fats 4%, and lactose 4. Inorganic salts, principally sodium

chloride, sodium, calcium and magnesium phosphate and calcium citrate, about 0.2%. The calcium salts are often deficient or absent, and such milk may cause rickets owing to the lack of calcium.

Human milk is less rich in protein (2%) and much richer in lactose (6%) than cow's milk. It is also slightly alkaline in reaction, while cow's milk is slightly acid. Consequently, to make cow's milk more nearly resemble human, it is necessary to dilute it to reduce the proteids, add lactose to the proper amount and usually some mild alkali like lime-water.

The milk of other mammals differs only in minor details from that of the cow, but it is unlikely that, even when modified as above directed, that the secretion intended for a calf or a young goat should fill the requirements of a young human being. Hence a change from the mother's breast to artificial feeding is a matter of grave consequence, and should be well considered.

On standing, some of the lactose in milk is converted into lactic acid by the action of bacteria and precipitation of some of the caseinogen takes place. This is not the same as true coagulation, such as produced by rennin, and which is the formation of casein. Hence, spontaneously soured milk is not the same as milk coagulated in the stomach, for instance.

Rennin will only coagulate milk when a suitable proportion of calcium salts is present. In this respect, the coagulation of milk is analogous with that of the blood, where calcium salts also play an important role.

In true coagulation, the curd consists of casein and entangled fat; the whey or supernatant liquid contains the lactalbumin, sugar and salts of the milk. Casein is not a globulin but a nucleo-proteid, containing considerable phosphorus in the form of nuclein.

The fats of milk are chiefly palmitin, stearin and olein. There are however, lesser amounts of fats derived from the lower fatty acids, chiefly butyrin and caproin. The proportion is roughly olein three-sevenths, palmitin one-third, stearin one-sixth, true butter fats one-fourteenth. There are also small quantities of lecithin, cholesterin and lipochromes.

Lactose is converted into lactic acid by the activtiy of bacteria. This process may continue until butyric acid is formed. Certain yeasts may produce a alcoholic fermentation as in the preparation of koumise and similar beverages.

When milk is kept on ice, the activity of the lactic acid bacteria is inhibited, and the milk does not sour. Putrefactive changes are not inhibited, however, and such milk may be very dangerous from ptomaines even though apparently sweet. This is particularly so when in the form of ice cream. Cases of ptomaine poisoning from this source are unfortunately numerous.

The great value of milk as a culture medium makes it a particularly dangerous article of food when derived from a diseased animal or when exposed to contamination after milking as the germs multiply in it much more rapidly than in any other food. Storage on ice inhibits their growth, but does not kill them. Boiling will certainly destroy any disease factors, but milk so treated has little food value, owing to the coagulation of the albumins. The process known as pasteurization is an intermittent sterilization, and while not destroying the food-value of milk will kill most pathogenic bacteria. See chapter on sterilization.

Among the diseases transmitted by milk are tuberculosis, anthrax, actinomycosis, typhoid, scarlet fever, diphtheria, streptococcus sore throat, and many others. We cannot find words to express our condemnation of such investigators who spread the doctrine

that milk from tuberculous cows is safe, provided the disease has not attacked the gland.

Another source of danger in milk is adulteration and the use of preservatives. The most common adulterations are the removal of cream (skimming) and the addition of water. The only harm done by the former is merely in reducing the percentage of fat and the objections are purely a matter of commercial ethics. By the latter, however, the germs of infectious diseases are often introduced, to say nothing of still further diluting an already unnecessarily bulky food.

Of the preservatives, such as formaldehyde, etc., the chief danger lies not so much in the substance itself, the amount usually being insufficient, but in the fact that putrefactive changes are masked without being prevented, and such milk may be highly injurious from ptomaines. Besides, many hold the opinion that the common preservatives, when used in sufficient quantities to prevent souring of the milk, interfere with digestion.

The addition of alkalies, such as soda, also arrests the lactic acid fermentation. The abstraction of part of the water by evaporation and the addition of sugar produces the modification known as condensed milk, which keeps almost indefinitely, and only needs diluting with water to produce a substance very nearly resembling fresh milk. Its extreme age is a point against it.

Butter.—When milk stands or is contrifuged, its fats rise to the top, and this layer, which should run from 10 to 12% of the total milk, is known as cream. When this is removed from the milk and agitated or churned, the fat separates into a mass, and is after various other steps consumed under the name of butter. Butter is one f the most useful foods, especially when eaten with some food, like bread, which is deficient in fat. It has a great tendency to undergo fermentation, when its so-called butter-fats become converted into their corresponding acids, chiefly butyric. The butter is then said to be rancid, and developes a disagreeable odor and taste, with a loss of its nutritive qualities.

The chief objections to butter are two-fold. It may carry the same disease germs which have been present in the milk from which it was made, or that it received by contamination. Second, it is often imitated or adulterated.

The principal substitute, known as butterine or oleomargarine, is made from beef suet by certain technical processes, the stearin being extracted and the resulting product being colored with annatto, to more nearly resemble butter. The food-value of this is probably equal to that of butter, and the objections against it are no more than those against any other animal products, including butter itself. The absence of the true butter-fats, however, makes the substitute less palatable and less digestible, and from an ethical standpoint, it should not be substituted for true butter without the consumer's knowledge.

Cheese is the curd of milk, separated by various processes and afterwards manipulated in various ways according to the variety. It is probably the most concentrated food we have, and as it consists chiefly of protein and fat, with a large excess of the former, its use in any but small quantities is inadvisable. The richest cheeses in fat are Fromage de Brie and Roquefort, containing about 35% of fat and 27% protein. Parmesan contains only 18% fat, but 40% protein. The others stand about midway between these extremes.

Owing to the habit of keeping cheese until it is putrid, it sometimes becomes a very dangerous article of diet. Even in the absence of perceptible pu-

trefactive changes, this food is very lable to contain ptomaines. Tyrotoxicon was first isolated from cheese by Vaughan. Cottage cheese is not a true cheese, but really represents the fresh curd of milk, usually from a lactic acid precipitation, either spontaneous or artificial.

Junket is a firm curd produced by the action on milk by the ferment rennin. It is usually flavored in various ways for the table.

Buttermilk is the residue left after making butter. It differes from whey, in containing a large amount of casein, less sugar and considerable free lactic acid. While it is a very popular beverage, its large protein content makes it more or less objectionable from a dietary standpoint, while the large amount of free acid may interfere with digestion. Many preparations going under this name never saw a churn, but are produced by acting on milk with various acids.

There are a number of preparations on the market, purporting to consist of lactic acid bacteria in pure culture, by the addition of which to milk buttermilk will be produced. While some of these are undoubtedly what they purport to be, yet the impracticability of keeping living bacteria compressed in a tablet or in powdered form, would seem a barrier to the success of such prepartions. Those in liquid form are probably more efficent. Among other bacteria the bacillus vulgaricus has the best reputation for the production of an agreeable and wholesome article.

Koumyss and various other similar prepartions consist of milk which has been acted upon by certain ferments of the yeast group, producing a partly alcoholic and partly lactic fermentation. They really come under the head of alcoholic beverages, and outside of any nutritious features, have no advantage over beer, etc.

Ice Cream.—Ice cream is the cream of milk, usually mixed with sugar, gelatin, and various flavoring agents, and then frozen. In this condition, milk is particularly dangerous, as the freezing will mask putrefactive changes. Ptomaines develop rapidly in this substance, and disease-germs are not injured by the freezing process.

In our next chapter we shall take up the compostion of the various vegetable foods.

To account for a chill and pyrexia in a post-operative or post-partum course exclude pneumonia and pyogenic infection before considering malaria. On the other hand, of course, malarial recrudecences are sometimes precipitated by operation and by parturition; and too, it is important to bear in mind that malarial seizures are occasionally marked by vomiting and localized pain and tenderness in the appendix region, easily leading to a mistaken diagnosis.

FEBRUARY RECORDER

The February Recorder will contain articles by the following men and there will be additional matter of deep interest to the readers:

"Chemical Composition of Foods," Burdick and Abel.

"Indication," Cont., George L. Servoss.

"The Mother," by W. T. Marrs, Peoria, Ill.

"Can Tuberculosis Be Cured?" J. A. Burnett.

"A Study of 25 Cases of Prostetectomy Performed by the Three Usual Methods," Drs. Pember and Nuzum.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

In the days which have gone by it has been the practice, on the part of many doctors, to treat diseases as diseases and with but little if any attention to the specific indications. Today, however, a change in practice is taking place. Instead of "favorite prescriptions" for various diseases, "shot-gun" mixtures, and long formulas, we find that many are meeting the individual indications as they arise and with but little regard for the disease under observation as a whole. In the following pages attention will be given to the meeting of specific indications with specific drugs, or other agents, in the various diseases. The diseases themselves will be taken up in alphabetical order, for convenience to the reader, in that he may be able to make rapid refernces. Symptoms, which are the usual indications for the use of drugs, will be considered fully and an endeavor will be made to show that these are as important as the pathologic features.

ABORTION.

In habitual abortion there is invariably a lack of either tone or vitality within the uterus itself, as well as a general lack of these. To give greater tone and vitality to this organ the indication is a tonic which will have a selective effect. The uterine tonic suggested by Buckley, consisting of Aletroid gr. 1-12; Bryonin gr. 1-500; Caulophylloid gr. 1-6; Macrotoid gr. 1-6; Helenoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000. When sedation is required the sedative and nervine, suggested by Candler, consisting of Helenin gr. 1-12; Virburnoid gr. 1-12; Discocoroid gr. 1-16; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12, meets the indication. Macrotoid, either alone or in combination with caulophylloid, if there is tendency to hemorrhage. Viburnoid, alone, to bring about uterine sedation. This relieves false pains. Aletroid where a tonic is indicated. Helonoid to increase functional activity and nutrition. To stop a threatened miscarriage, morphine carefully, in small dose, of betetr a combination of morphine gr. ¼; Hyoscine hydrobromide gr. 1-100; Cactoid gr. 1-64. In syphilitic subjects, with tendency to abortion, Mercuric iodide gr. 3-64; Arsenous idodide gr. 1-64; Iodoform gr. ½; Phytolaccoid gr. ½. Iodized lime may be employed alternately with the last mentioned formula, with good results. Caulophylloid, to increase tone of the generative organs, is also indicated in syphilitic cases. To prevent and overcome early hemorrhage, atropine sulphate hypodermically, in full dose, followed by hydrastinine hydrochloride gr. 1-12 to gr. ¼, per os, at intervals of three hours. Hydrastine hydrochloride gr. 1-64 to 1-12, at like intervals, following the initial hypodermic application of atropine, may be employed in these early cases. In late hemorrhages, per os, hydrastinine hydrochloride, ergotoid, macrotoid. Locally, an application of stypticin or iron alum to the os, with vagina tightly packed. In most cases a thorough curettage is desirable. In all cases where infection is feared, the Van Cott Combined Bacterin should be administered early. As a prophylactic, a full dose should be administered every seven to ten days. When sepsis is established, smaller doses, 1-10 to ½ Cc. of the bacterine should be injected every four to eight hours.

ABSCESS.

Under this head only superficial abscesses will be considered. In the majority of cases of this sort, unless known to be purely local infection, we find a general dyscrasia, and this must be corrected as well as the local manifestation. Full elimination is one of

the chief indications and to meet this we have calomel, podophyllin, irisoid and the salines, one or all of which may be, in fact, should be administered as the initial treatment. These should be followed by calcium sulphide, the latter to combat and overcome infection. The sulphide should be pushed to full effect. After the bowel is cleared of its contents, in that toxemia from that source may be overcome, the sulphocarbolates are indicated If there is an acidemia, as shown by tests made through the use of the Harrower Acidimeter, the sodium and xanthoxylin compound, consisting of sodium sulphocarbolate grs. 2½; Sodium sulphate gr. 5; Sodium bicarbonate grs. 20; Colchicine gr. 1-500; Juglandoid gr. 1-6; Xanthoxyloid gr. 1-6 with Sodium chloride and aromatics, q. s. to make one dram, meets the indication. Locally, a free incision, with evacuation of the pus should be the invariable practice. Following, the cavity should be swabbed out with either formaldehyde solution or 95 per cent. carbolic acid. Following the suggestion of Wright, the dressing should be one of sodium citrate and sodium chloride. A bacterin, either stock or autogenous, is invariably indicated. The staphylo-bacterin is the one invariably indicated, if one from stock is employed. Sodium citrate internally, to flavor flow of blood to the infected area is likewise an important indication. In suspected abscess formation, in which pus has not already apeared, the condition may be aborted by a prompt purge, followed by veratrine, gr. 1-128, hourly until pulse slows. In such cases the surface of the skin should be repeatedly painted with tincture of iodine. The patient should be given the arsenates of iron, quinine and strychnine, or an alterative tonic. In stubborn cases, those in which a stock bacterine is not giving desirable results, an autogenous one should be prepared and applied. Calcium sulphide to combat infection.

ABSCESS, CHRONIC HEPATIC.

To reinforce the leucocytes, nuclein in full dosage. To increase hepatic activity, boldine. This acts to increase the secretion of bile and elimination. Chionanthoid, as an hepatic stimulant, is freqeuntly indicated. Arsenous acid as an alterative. Calcium sulphile to combat infection, this to be pushed to full effect. In cases of amebic origin, the treatment of today is the hypodermic application of emetine hydrochloride and numerous successes have followed the use of this agent. The Colibacterin is indicated in the majority of instances. When possible an autogenous bacterin should be employed. As in other purulent condition, echinacoid is suggested.

ABSCESS, MAMMARY.

As eliminants, irisoid and phytolaccoid, with calcium sulphide to combat infection. The breast should be kept as empty of milk os possible, suppression with atropine or belladonna ointment, if necessary, and it should be supported with a proper bandage, the latter not too tight. Pus should be evacuated immediately upon its appearance and the abscess treated locally as are abscesses in other parts. Staphylo-bacterin is almost invariably indicated in all mammary abscesses.

ABSCESS, PNEUMONIC.

Nuclein to support and increase the leucocytes. Calcium sulphide to overcome and inhibit infection. As a systemic antiseptic and reconstructive, Nuclein solution M 10; Guaiacol carbonate gr. 1; Iodized lime gr. ½. Inunctions of Crede ointment is also indicated. The following tonics are indicated: Strychnine arsenate gr. 1-128; Quinine arsenate gr. 1-64; Iron arsenate gr. 1-64; Nuclein solution M 4: or Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution M 4: or, Defibrinate blood M 30; Manganese pepton-

ate gr. ½; Iron peptonate gr. 1; Nuclein solution M 5. The Pneumo-combined-Bacterin in indicated in practically all cases.

ABSCESS, TUBERCULAR.

In properly selected case, tuberculin. Calcium sulphide to combat infection. Calcium lactophosphate to increase lime supply, which is invariably low in these cases. As tonics, Nucline solution M 10; Guaiacol carbonate gr. 1; Iodized lime gr. ½: or, the arsenates of iron, quine and strychnine with nuclein. For full particulars, see Tuberculosis.

ACETANILID POISONING, ACUTE.

Gastric lavage, immediately. For immediate support of cardiac action, glonoin and strychnine, hypodermically. To sustain heart tone, either digipoten, strophanthin, cactoid or strychnine, three or four times a day. To relieve severe dyspnea and cynosis, glonoin and cactoid pushed to full effect, with physiologic salt solution, sixteen to twenty ounces, by hypodermoclysis, or larger amounts by proctoclysis.

ACETANILID HABIT.

The arsenates of iron, quinine and strychnine with nuclein, as a general tonic, with cactoid as a cardiac tonic to steady the heart action. If there is insomnia, small doses of chloral or codeine or the following combination: Sulphomethane grs. 5; Scutellaroid gr. 1-3; Solanine hydrochoride gr. 1-32; Cactoid gr. 1-64. The latter to be given in this suggested dose or double the amount, and in hot water, or with some hot light food-drink at bedtime, and repeated in one hour, if necessary.

ACHOLIA (INSUFFICIENCY OF BILE).

A combination of Calomel gr. 1-6; Podophyllin gr. 1-6; Bilein gr. ⅛; Strychnine arsenate gr. 1-250, a dose hourly or half-hourly at night until four doses have been taken: or, Blue Mass gr. ½; Sodium bicarbonate gr. ½, one or two (with menthol) in hot water every two to four hours to effect. The latter may be combined with leptandoid or euonymoid, as indicated, in divided doses at night, to effect. To increase liver function and elimination of bile, boldine and irisoid before meals. Flush the bowels every morning with saline laxative.

ACIDITY (HYPERCHLORHYDRIA).

Determine and remove the cause in all cases. If due to chronic gastric catarrh, the following: bismuth subgallate with guaiacol carbonate or resorcin, and silver oxide, may be effective. To aid digestion, one of the following: Papain gr. 1-6; Strychnine arsenate gr. 1-128; Capsicum oleoresin gr. 1-64; Emetoid gr. 1-128: or, Papain gr. 1-3; Charcoal (vegetable) gr. 1; Sodium bicarbonate gr. 2-3; or, Papain gr. 1; Pepsin gr. 1; Berberine hydrochloride gr. 1-32; Strychnine sulphate gr. 1-128; or diastase: or papain: or, Betain hydrochloride grs. 2; Pepsin gr. 1; Papain gr. ½, as indicated. The following are suggested as antacids: Cereum oxalate gr. 1; Bismuth phenolate gr. 1; Stovaine gr. 1-25; or, Cereum oxalate gr. ¼; Bismuth subsalicylate gr. ½; Sodium carbonate gr. 1; Manganese dioxide grs. 2: or, Sodium carbonate gr. 1; Sodium sulphocarbolate gr. 1; Emetine hydrochloride gr. 1-1000; Hydrastine hydrochloride gr. 1-32; Berberine hydrochloride gr. 1-32; Rheoid gr. 1-6, with aromatics, q. s.: or, Sodium carbonate gr. 1; Sodium sulphocarbolate gr. ½; Juglandoid gr. 1-6, with aromatics q. s.: or iodized lime or sodium sulphocarbolate. One of the folowing may also be employed to tone the digestive function: Strychnine arsenate gr. 1-128; Quasoid gr. 1-64; Papain (papayotin) gr. ½: or, Strychnie arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. 1-32; Juglandoid gr. 1-6; or, Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. ½; Juglandoid gr. ⅛. To relieve pain, the folowing: Hyoscine hydromide gr. gr. 1-400; Morphine hydrobromide gr.

1-16; Cactoid gr. 1-128; Pilocarpine hydrocloride gr. 1-64; Caffeine gr. 1-32: or, Hyoscine hydrobromide gr. 1-1000; Morphine hydrobromide gr. 1-64; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-128; Caffeine gr. 1-64: or, Resorcin gr. 1-40; Stovaine gr. 1-50; Atropine sulphate gr. 1-2500; Delphinine, crystal gr. 1-1000: or hyoscyamine or cannaboid. If there is gastric fermentation, salicylic acid, resorcin or the sulphocarbolates. The Bacillus Bulgaricus, on an empty stomach three times a day, if there is intestinal fermentation. To mildly increase intestinal peristalsis, juglandoid, strychnine or emetoid. The bowel should be kept clear with morning doses of a saline laxative.

ACNE.

The toilet of the bowel is not infrequently the primary indication in the treatment of this disease. This organ should be cleared out through the use of Calomel gr. 1-6; Irisoid gr. 1-6, four to six doses every third night, with or without salines the following morning. Follow with the combined sulphocarbolates, ten to thirty grains, three or four times a day until the bowel discharges are normal in odor and color. Calcium sulphide, 1-6 gr. every two hours, or larger doses at less frequent intervals, to full saturation. To secure elimination and for its alterative effect, Echinacoid gr. ½; Irisoid gr. 1-3; Rumicoid gr. 1-3; Aulnoid gr. 1-3; Cascaroid gr. ½, one or two every three hours until free action of the bowels is secured, afterwards, one four times a day. Arsenous sulphide as a general alterative and reconstructive, gr. 1-64 after meals. If there is constipation, either of the following is indicated: Washed sulphur gr. 1-32; Strychnine arsenate gr. 1-128; Podophyllin gr. 1-64; Collinsonoid gr. 1-128; Berberine hydrochloride gr. 1-128: or, Washed sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25, with carminatives, q. s. To improve the circulatory conditions, if there are indications to such effect,cactoid, digitalin, strychnine, or one of the other cardiac tonics or stimulants. Digestion is usually faulty in many of these cases and to improve this function the following are suggested: Papain gr. 1-3; Vegetable charcoal gr. 1; Sodium bicarbonate gr. 1; or Papain gr. 1; Pepsin gr. 1; Berberine hydrochloride gr. 1-32; Strychnine sulphate gr. 1-128: or, Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. ½: or Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. 1-32; Juglandoid gr. 1-6; or Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. ½; Juglandoid gr. ⅛. Locally, the abscesses are treated much as others. Evacuate the pus and treat the cavities with pure phenol, followed with alcohol to neutralize within a minute or two. The skin should be thoroughly washed with hot suds, this, in the minds of the writer to be followed by stimulating cold applications. Among the medicaments suggested for local use are a distillate from shale tar, diluted with a vegetable oil and carrying phenolic constituents: or, a mixture carrying the following to the ounce: Camphor gr. 2-3; Menthol gr. 2-3; Phenol gr. 2-3; Thymol iodide gr. 2-3, with oil tar, cassia and eucalyptus q. s., in a purified vegetable oil: or, a solution carrying 8 per cent of sulphur in chemical combination. In the acne like eruption association with the administration of the bromides and iodides, arsenous acid acts as a corrective. Phosphorus is also useful, as well as the following combination: Iron phosphate, Calcium phosphate, Potassium phosphate and Magnesium phosphate, of each 1-12 gr. with Nuclein solution M 4. The morning saline should never be forgotten, as a clean and clear bowel has much to do with the satisfactory treatment of the condition. The bacterins, either stock or autogenous, are now playing

a considerable part in the treatment of acne. Those indicated are either the Acne- or Saphylo-Acne-Bacterin, with administration every seven to ten days. Many obstinate cases show marked improvement, if not recovery after the application of the bacterins.

ACNE ROSACEA.

Look for the cause, which may be uterine, ovarian or preputial inflammation, acidemia, anemia, tuberculosis or one of many other things, and remove it. This may be due to overindulgence in poorly cooked, greasy or fried foods, or to too great an ingestion of sugar, and these should invariably be taken into consideration. Arsenic seems, with the salines, to be the remedy in this condition. If digestion is at fault, one of the digestants or stomachics mentioned elsewhere in these pages should be used. The diet should be regulated as one of the first procedures. The bacterins indicated in acne, as mentioned above are likewise indicated in this special form of the disease. It is possible that, in certain selected cases, an autogenous bacterin is preferable to a stock.

ADDISON'S DISEASE.

Push elimination, dermal, renal and intestinal to the utmost. To delay progress of the disease, phytolaccoid or the following combination: Nuclein solution M 10; Guaiacol carbonate gr. 1; Iodized lime gr. ½. These can be alternated with the arsenates of iron, quinine and strychnine with nuclein. The latter should be pushed at all times throughout the course of the disease. To relieve nausea and vomiting and to act as sedatives Hyoscine hydrobromide gr. 1-400; Morphine hydrobromide gr. 1-16; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-64; Caffeine gr. 1-32: or, Hyoscine hydrobromide gr. 1-1000; Morphine hydrobromide gr. 1-64; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-128; Caffeine gr. 1-64: or, Cereum oxalate gr. 1; Bismuth phenolate gr. 1; Stovaine gr. 1-25. One of the reliable suprarenal products should be used throughout the course of the disease.

ADENITIS.

Nucline in indicated in practically all cases to reinforce the leucocytes and more especially in severe cases where there is low vitality, where it may be advantageously given in conjunction with the following: Iron phosphate, Calcium phosphate, Potassium phosphate and Magnesium phosphate of each gr. 1-12, with Nuclein solution M 4. This later combination with iodized lime, alternated with phytolaccoid and irisoid act well in many cases, while in others the Iodied lime gr. 1; Mercury iodide gr. 1-64; Strychnine arsenate gr. 1-128; phytolaccoid gr. 1-6; Nuclein solution M 2, seems to get better results. Watch the urine closely for appearance of albuminuria and keep the bowel clear and clean through the use of saline laxatives followed by the sulphocarbolates or a culture of bacillus Bulgaricus. In the face of suppuration use echinacoid and calcium sulphide, or Echinacoid gr. ½; Irisoid gr. 1-3; Rumicoid gr. 1-3; Alnuoid gr. 1-3; Cascaroid gr. ½, either to be pushed to full effect. Another valuable agent is the following: Iodized lime gr. 1-3; Phytolaccoid gr. 1-3; Stillingoid gr. 1-6; Arsenous iodide gr. 1-64; Nuclein solution M 4. As tonic alteratives, juglandoid or xanthoxyloid. Tuberculosis and other diseases of this sort should be given consideration and proper attention. After suppuration exists, the bacterins are frequently useful, but should be employed only after a bacteriologic test. Those indicated in such cases are the Staphylo-Bacterine - Mixed; Staphylo -A lbus and Staphylo-Aureus-Bacterin or the Van Cott Combined-Bacterin.

ADENOIDS.

In all cases these growths should be removed at the earliest possible mo-

ment. While they remain the indications may be met by the use of iodized lime, or the combination of Nuclein solution M 10; Guaiacol carbonate gr. 1; Iodied lime gr. ½: or, the arsenates of iron, quinine and strychnine with nuclein: or, Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution M 8; Iodized lime gr. 1. Where there is struma, the following, pushed to effect: Iodized lime gr. 1; Mercuric iodide gr. 1-64; Strychnine arsenate gr. 1-128; Phytolaccoid gr. 1-6; Nuclein solution M 2. Locally, after cleansing the surfaces with a mild alkaline antiseptic either of the following may be applied by spray or swab: Camphor grs. 20; eMnthol grs. 20; Liquid petrolatum oz. 1: or. Camphor, Menthol, Phenol and Thymol iodide, of each 2-3 gr. with oil tar, cassia and eucalyptus q. s. in a purified vegetable oil. Astringents, such as alum or tannic acid in solution with rose water, or a solution of zinc sulphocarbolate, 10 grains to the ounce of water, frequently act well.

Adynamia (Deficiency of Vital Power)

In all cases the underlying condition should be looked into and corrected. The more prominent indications, directly, are for the application of those agents which will stimulate the vital functions. The folowing tonics are very frequently indicated: the arsenates of iron, quinine and strychnine with nuclein: or, the phosphates of iron, calcium, potassium and manganese, of each 1-12 gr. with nuclein solution M4: or, Defibrinated blood M 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution M 5: or neuro-lecithin. These are the domiant remdies. As alternates, to stimulate the gastric and bowel functions, strychnine or brucine and juglandin. Morning dose of saline laxative to keep the bowel clear.

(To be Continued.)

THE X-RAY IN FRACTURES

J. F. PEMBER, M. D. & T. W. NUZUM, M. D.
Janesville, Wis.

Since the advent of the X-ray and its very general use in the examination of fractures, the profession has become the target of the unscruplous lawyer and a class of people whose greatest desire is to get some easy money to such an extent that it has made cowards of us all, so to speak, and we hasten to get a picture of the bones to see if they are in perfect apposition and if we find they are not, and they usually are not, we hasten to convert a simple into a compound fracture and apply Lane's plates (which at best are a foreign body and destined to make trouble sooner or later and only too often the trouble comes soon.)

We who have practiced bone surgery before the advent of the X-ray, know that non unions were rare and bad results infrequent; that when the bones were moulded into apposition with the patient under a general anaesthetic and thoroughly relaxed; and the part supported by proper splints and dressings or casts, as the case might be; with a frequent removal of dressings and massage of the limb; the results were quite uniformly satisfactory, both as to functional results and natural length and symmetry, although the X-ray in many cases would show that the two bone ends were not in good apposition. In fact, I have examined cases where the X-ray pictures showed very poor coaptation and even over riding, where the functional result was quite satisfactory, and nature after a time so smoothed off the sharp and rough edges that the bone ap-

peared quite normal at the point of fracture.

In case of non unions or delayed union or ligamentous union, we were taught to allow the patient to use the part and thus by friction between the ends of the bones to induce the deposition of bone forming elements and cause or hasten union, a goodly number of such cases we have availed ourselves of such helpful treatment. I cannot now recall a case where it has not proven efficent in our practice.

It is a well known fact that in animals a non union is quite unknown. The union will be faulty, the provisional callous large, and the ends of the bones lap with much deformity, but there will be union while in our plated fractures, where the bone ends are shown to be in perfect apposition, we not infrequently see delayed union, non union or ligamentous union with deformity and mobility much greater than we were want to see by former methods of treatment.

May it not be that the too perfect immobilizing of the fragments prevents friction between the injured parts, thus lessening the blood supply and rendering non or delayed union more frequent.

Would it not be better for the patient were the X-ray less used and especially by those of the profession who are young and inexperienced in the work.

The danger of making a compound out of a simple fracture is not entirely to be lost sight of even in these days of antiseptic surgery, and more especially, where hospital facilities are not at hand and the fact that we so often see plates removed at the various clinics in different cities is proof positive, that the patient is far better off, both as to morbidity and financially without them, as he thus escapes two operations, one to put them in and one to remove them. Even where he entirely escapes the ill results of bone tissue infection, which has proven to be frequent by the loss of limb and life, and now as to the end results of each method. It is my observation and belife that barring the very rare cases where the fragments can not be held in proper, not perfect apposition by the old and time tried methods, that the end results are better as to function, with less loss of time to the patient and at much less expense and danger than by the use of plates.

I believe Lanes's plates will always have a place in surgery of the bones but I am convinced they are used many times where the more conservative treatment would be much safer and better for the patient and we are all agreed that the interest of the patient is always paramount.

If surgeons could come to realize and teach the public that an X-ray picture is merely a shadow and can never have that perfection which a photograph has. That they are often deceiving and misleading unless taken from several angles, and the results of all the pictures compared and then interpreted by an expert radiologist it would go far toward eliminating the great fear of the profession and save our patients much unnecessary suffering, morbidity and expense.

Prof. Martin says, "As a rule the presence of a plate instead of stimulating osteogenesis between broken bone ends retards it." We are all aware the provisional clot forms the scaffolding for the future collous and greatly stimulates osteogenesis. This is lost during the plating process. It is generally admitted that non-union or delayed union is much more frequent in compound fractures, even where there is no infection present, probably from the the escape of the blood and secretions.

Dr. Freeman in a paper read before the Surg. Sect. of the American Medical Asociation, says: "Everyone knows that while plates are being inserted all

over the country, they are constantly being taken out, either by those who put them in or by others.''

If this were all it would not be so bad; but in addition sepsis is not infrequent, sometimes resulting in loss of limb, as I have seen, or even in loss of life. In our Denver hospitals, which I venture to say, compare favorably with most others many plates have been inserted, the majority of which have had to be removed for various reasons, and some of the results have been disastrous in the extreme.''

Dr. J. B. Murphy in discussing this paper, calls attention to the fact that bone tissue has very feeble powers of resistance to infection, hence the great danger of changing a simple into a compound fracture. Murphy asks the question, ''Why is it that we are having one hundred times the number of cases of non union that we had between the decade of '85 and '95? And answers the question by stating that absolute immobilization by plaster and plates as well as other instruments and appliances, so there is not sufficient friction to cause or stimulate osteogenesis.''

Another point upon which Murphy lays great stress is not only the futility of but the great harm done by placing a foreign body in a compound fracture, he says at this point.

''If we could only learn to keep our hands, our nails, our screws, our spikes, and our splints out of fractures that are in all probability mildly infected, we would have much better results in our treatment of compound fractures. After swabbing the surface with Tr. Iodine solution, a dressing of gauze soaked in alcohol should be applied and the whole limb immobilized for many days, unless the temperature or other conditions indicate a change.''

Mr. Lane himself advises against the use of the plates in cases on non union.

The literature is now teeming with such statements and experiences from our best men and as railroad surgeons it behooves us to obtain the opinion and desires of our head surgeons on this very important matter.

In conclusion allow me to ask:

1st. Is the X-ray an unalloyed blessing in the treatment of fractures to the patient and physician?

2nd. Are our results better functionally now than before the advent of the X-ray?

3rd. Is our great anxiety to get a perfect allignment and apposition of the bone ends the cause of the non union in some instances?

4th. Are not the Lane plates being used many times too often where simple dresings properly applied, after a careful reduction under a general anaesthetic would be far better and avoid many dangers to life and limb.

5th. Is it wise, except in very rare instances to convert a simple into a compound fracture, even though the X-ray shows slight deviation of alignment?

6th. Is it wise to use foreign bodies in compound fractures?

In bringing this subject to the attention of this body of eminent men, it was our desire to bring out the ideas of many of you concerning the use of Lane's plates, to find out the results and experiences of others, and by a free and general discussion of this most vital and live subject, to arrive at some very definite conclusion, and especially to call forth the opinions of our eminent chief surgeon, and learn his, and through him the Company's desire relating to the management of these cases, as I am sure it is the desire of us all to serve our patients in the most up to date and efficient manner and in so doing we will render the Company the best service of which we are capable.

X-RAY THERAPEUTICS

H. C. BENNETT, M. D.,
Lima, Ohio.

THIS BOOSTING GAME.

We have talked a good deal lately to our subscribers about boosting their favorite Medical Journal and we are by no means through with these short talks. We are publishing below a short poem written by one of our regular subscribers. As you will see this poem is surely a good one to use in helping to boost his home town. If we can spend a little time in helping to boost our town we can surely spend a little time in helping to boost the Journal that we get the most good out of each month. Let every reader of The Recorder get busy to see what he or she can do during 1914 to increase our circulation.

On the Highway.

Lima's on the "Highway,"
  The "Best Town on the Map;"
If you live in Lima,
  You're a lucky chap;
"Lincoln Highway" reaches
  Away to east and west,
Touches many cities,
  But Lima is the best.

Lima's on the "Highway,"
  But not on only one;
All roads lead to Lima,
  Her growth has just begun;
The eyes of all the world,
  Are on us night and day;
"Best Town in Ohio,"
  Is what the people say.

Lima's on the "Highway,"
  To great prosperity,
Nothing here to stop us,
  On that we all agree;
People on the "Highway,"
  When passing to and fro,
Will stop off in Lima,
  And help make Lima grow.

Lima's on the "Highway,"
  And Lima's here to stay;
When you come to Lima,
  You will not go away;
Come and we will meet you,
  And take you by the hand;
We offer "welcome' to
  The "Best Town in the Land."

"Lincoln Highway" finds us,
  Just follow "Lincoln Way,"
We'll be glad to see you,
  Come right along today;
Latch-string's hanging outside,
  So listen to our call;
Lima's on the "Highway,"
  With lots of room for all.

Lima's on the "Highway,"
  That fact is very plain,
Is leading all the rest,
  With lots of brawn and brain;
When you want a city,
  Chuck full of vim and snap,
Settle down in Lima,
  The "Best Town on the Map."

MEASUREMENT OF X-RAY DOSAGE.

The original Sabouraud pastille method was to furnish these pastilles in book form with a standard, or B tint, and the pastille being placed halfway between the anode of the tube and the skin, being supported on a piece of metal, and at least two C. M. away from the wall of the X-ray tube, then exposing until the pastille changed in shade to the standard B tint, which represented the greatest dose 'that the human skin can receive without redness following the dose, and will produce temporary loss of hair.' "

The question is frequently asked: "Why should I use a radiometer for measuring my dosage when I am getting results now? Answer: Because tubes vary. For instance, a doctor in the East says, "I have one tube which will change the pastille the proper shade for a full dose, which is number four, in five minutes. It is the only tube I have used that will do it." A doctor in the West says it takes him thirty minutes to do the same thing. Now, just think what would happen if those tubes were exchanged. Is there any more argument needed? A dose of powerful medicine is always measured.

Another thing: suppose for some reason you are sued by a patient you have treated with the X-rays. If the case comes to court and you show you measured your dosage by a recognized method, the fact that you have used all precautions known to the art will go a long way in your behalf.

RING TARGET TUBE IN X-RAY.

To the readers of The Recorder who are interested in the use of the X-Ray this personal letter to Dr. H. C. Bennett of Lima, Ohio, may be of interest, so we take this opportunity of publishing the same. We believe that any good thing should be passed along.

Dr. H. C. Bennett, Lima, Ohio.

Dear Sir: You have been asked why the ring target tube, of the penetrator type, is better than the tube without the ring: and our aim is to give you in this letter a little information.

When the ring is used, the cathode stream is forced to pass through the ring and must strike the target in a smooth, round, steady stream, preventing stray rays and giving a sharper focus, and better definition. It is a well-known fact that the nearer the target is to the cathode, the higher the resistance of the tube: therefore, in the ring type tube the internal resistance is increased without the removal of the life-giving gases.

In other words: if you can imagine being able to remove the ring from the tube, without destroying the vacuum, your resistance would be materially decreased: or, you would have a lower vacuum tube without the ring than with it.

These tubes may be used on either coil or transformer. Do not understand that they are interchangeable, for they are not. We pump the tubes for the apparatus on which they are to be run. Transformer tubes are lower in vacuum than coil tubes.

Macalaster-Wiggin Co.

COLLARGOLUM.

By J. A. Burnett, M. D., Hartshorne, Okla.

It is claimed that collargolum is of value in sepsis lymphangitis, cellulitis, bronchitis, pneumonia, meningitis, tonsilitis, erysipelas, salpingitis, consumption and various other diseased conditions. The general systemic effect of collargolum can be produced by either its internal, external, hypodermic or rectal administration.

In a personal letter to me from Dr. I. L. Van Zandt regarding the different modes of application of this remedy he closed by saying:

"When the bowels can be made to retain the collargolum I prefer this route always being sure the bowel is well cleansed before giving it."

Dr. I. L. Van Zandt graduated in 1866, has been professor of theory and practice of medicine in a medical colleg and has used collargolum in different ways for various conditions ever since 1899. I consider what he says about the rectal rout very important. The rectal use of many drugs deserves far more attention .

In the Texas Courier Record of Medicine, Jan., '911, Dr. I. L. Van Zandt has an article nearly seven octavo pages on "Range of Usefulness of Collargolum." In this article when discussing the different modes of administration of collargolum Dr. Van Zandt has the following to say regading the rectal route.

"Enema. First wash out bowel and when it has become quiet, inject 10 grains dissolved in 4 ounces of warm water once or twice daily. If necessary an opiate may be used to counteract irritability of bowel."

There are many remedies that will give better results when used by rectum than by any other mode of application especially for certain purposes.

EDUCATING THE PUBLIC VIA. OF DRAMA

W. T. MARRS, M. D.
Peoria, Ill.

The drama is an ancient and honorable means of imparting useful instruction to the public. During the last year or so the stage has been used in a manner somewhat bold and bizarre to drive normal and sexual truths into the minds of the more or less unsophisticated lay world. The intent of many dramatists is good and they have been actuated by high, altruistic motives in the presentation of plays that have a moral or sexual angle. On the other hand, some have simply seized upon a popular propaganda in order to exploit their salacious wares under the name of morality and the uplift movement when their main purpose has been to ride on the crest of sensationalism.

I am more familiar with such plays from a rather wide browsing of literature and the ubiqutous reviews than from witnessing them before the footlights. In this short article I shall call brief attention to a few of these plays. "The Lure" is one of the numerous productions based upon the deplorable white slave traffic and it is one of the most recent. It has not been permitted to appear in several cities, which fact of course gives it good advertising and insures fair houses where it is tolerated. A part of the technique of this play seems to be based upon an absurd newspaper story. Some months ago we read in the public print of how the white slave villain secured his victim by means of a "poisoned needle." We were told that the needle was poisoned with hyoscine and when the wielder of it inserted it in the flesh of an unsuspecting girl in some public place she was at once overcome by the deadly drug and fell an easy victim to her seducer.

We all know how ridiculous this is, for hypodermic injections with even the most deadly drug can not be accomplished in this easy manner. "The Lure" may on the whole teach a good lesson if it is approached in the right attitude of mind. Too often people attend these plays simply to feed their prurient minds rather than to be uplifted.

There was recently produced in Chicago a play which, I believe, is known as "The Natural Way." This is said to be a story having quite an obstetrical trend in the world-old matter of a girl seeking a doctor to destroy her unborn child. The doctor is a conscientious fellow with a real spine and he doesn't fall for any crooked game. In another somewhat similar play—similar in that it involves the sin of illicit love—a girl goes wrong and then blames it all on her mother because she did not instruct her daughter right and point out to her the path of virtue. Perhaps many mothers might be quickened to a sense of maternal duty by seeing such plays. Perhaps many girls might be benefited by witnessing them. Ignorance is not always bliss, as we as physicians are painfully aware. And still, sometimes, such plays may only awaken new and perverse avenues of thought in the young and suggest ways and means by which they think they might sin and not be found out or be obliged to pay the awful penalty.

It is probable that "Madame X," in which the blighting influence of dope is so vividly portrayed, has done something toward discouraging the indiscriminate use of narcotic drugs. A woman undergoes mental and moral dissolution under the influence of ether. Etheromania is said to be gaining quite a foothold in this country and persons of low calibre readily resort to ether or chloroform in order to relieve insomnia and court forgetfulness. I

have personal knowledge of individuals who are characterless and spineless putting ether in their cheap whiskey in order to hasten and augment a debauch. Such plays as the one named ought to set a horrible example before weak men and women.

"Damaged Goods" is the play in which the horrors of syphilis are fully set forth. The play may have an uncanny effect upon highly neurotic individuals and thus work harm in certain individual cases in the pessimism and melancholia it may produce. But on the whole, such a play teaches a powerful, wholesome and unlifting lesson and it is probable that it has done some good in the efforts directed toward the stamping out of this world-wide affliction. The drama can be untilized for impressing truths in a way peculiarly its own, but sensationalism and pruriency should be studiously avoided.

RELATION of the SYMPATHETIC TO DISEASE

S. B. BUCKMASTER, M. D.
Janesville, Wis.

In all vertebrated animals the nervous system consists of two distinct systems, the cerebro-spinal and the sympathetic or ganglions.

The latter consists of a chain of ganglia connected by nerve fibres, and called by Bisbrat the nervous system of organic life since it appears to regulate independently of the will, the functions of the organs of respiration, circulation and digestion.

Since Bisbrat's researches, increased knowledge has been acquired regarding the functionating of the sympathetic. and its importance is urged as justifying this paper, in which but a very cursory review of the subject can be given.

As already stated, the sympathetic nervous system is composed of, first, two series of ganglia, connected by nerve fibres, extending down each side of the vertebral column, through the chest, abdomen and pelvis. Second, of three plexuses lying in front of the spine in the thoracic, the abdominal and the pelvic cavities. Third, smaller ganglia upon or in the viscera, and lastly of the nerve fibres which connect the ganglia with each other, with the cerebro-spinal system and with the periphery.

The two chains of ganglia extending from the base of the skull, unite in the pelvis in the ganglionic mass called the ganglion impar.

The three ganglionic plexuses are known as the cardiac, the solar or epigastric and the hypogastric, their names indicating the particular viscera over which they preside. These great plexuses are subdivided into smaller ones, as for instance in the cardiac we find the aortic plexus, lying in the arch of the aorta; in the solar plexus we find smaller ones, as the caeliac, the spermatic, etc., while in the lower great plexus, the hypogastric are smaller ones, presiding over the bladder, rectum, vagnia, uterus, prostatic, etc.; in fact scattered all through the viscera are many small plexuses, many of them microscopic, but all performing important functions in presiding over what has been called the vegitative existence, that is the involuntary or automatic action of the organs of the body.

Through its vaso-motor portion, the sympathetic controls the circulation, and thus has a trophic function governing the nutritive processes; every sympathetic ganglion is a vaso-motor center, possessing some independent action and thus exercising an influence,

and especially worhty of attention is vaso-motor reflex action.

The reflexes are too numerous to mention, but I call attention to these facts: the unconsciousness caused by a blow over the solar plexus (the "knock-out" of the pugilist), the palpitation, vomiting and faintness of acute indigestion, the collapse of perforation, the emotional states, as in hysteria, increased arterial tension, all are but a few of the manifold effects of a pathological condition of the sympathetic system. By reflex action through the emotions, the organs of secretion and excretion may be greatly stimulated, or on the other hand, inhibited; how often have you as physicans seen the mother's secretion of milk greatly checked as a result of anger or fright?

The amount of urine may be greatly augmented by a nervous attack, or on the other hand, it may be greatly lessened as the result of the visitation of a calculus in the kidney.

We may say that the very important part the sympathetic takes in so many morbid conditions is owing to its being so constantly affected by reflex irritation.

After this very brief resume of the anatomical and physiological properties of the sympathetic, let us, also briefly, consider its relation to disease.

Our time is too limited to give much attention to the many diseases in which the sympathetic is involved and I can only enumerate a few of these morbid conditions thus influenced, as various diseases of the eye (myosis, mydriasis, etc.), exopthalmic goitre, insomnia, some of the phenomona of epilepsy, of angina pectoris, of neurasthenia and many of the neuroses.

Let us consider one of these with a little more detail, insomnia. Fox says that many kinds of insomnia depend upon changes in the vascularization of the brain. It is very generally accepted that sleep is due to a decrease in the size of the cerebral arteries; inducing a partial anemia of the brain.

Chapin relates that "hearing it suggested that if sleep is dependent upon cerebral anemia, amyl nitrite, which promotes the circulation in the brain, should waken sleeping persons, I tried it one evening. With the aid of my nurse I very carefully applied a few drops of the drug to the nostrils of 10 or 12 patients who were sound asleep and in every case they awoke in less than one, or at most two minutes. This was repeated on several evenings and on different patients, but with a uniform result.

Lest it might be simply the odor of the drug, or its irritation of the 5 in. nerve, or my presence near the fifth nerve, or my presence near the phide of carbon and oil of peppermint, but succeeded in awakening not a third of those on whom they were employed. Hence we conclude that sleep can be induced, directly or reflexly, through the sympathetic nerve."

Fox says taking the general results of experiments and pathological observations into consideration, it must be concluded that in sleep the brain is more anaemic than in the waking hours. The ordinary experience of the laity even would tend to show the same thing. The somnolent effects of digestion, in which the alimentary canal makes so great a demand on the circulation; the good results of inducing sleep in hard-worked brains of intellectual people, in whom insomnia is so frequent, by insisting on their taking a small meal at midnight; the advantages of a warm bath before going to bed, or at least a prolonged foot-bath; the almost certain effect of a long, narrow sinapism down the whole length of the spine, and the occasional benefit of remedies that cause an intestinal flux, all point to the same

conclusion, that when the brain is anemic, molecular activity is difficult; the somnolence of old age, with atheromatous cerebral arteries, shows the same thing.

"Do the vaso-motors ever sleep? Digestion proceeds during sleep and secretion goes on in all the glands; the heart acts, the urinary secretion is going on through the deepest sleep; the sense of epigastric weight from a heavy meal overnight has passed away on awakening; the eruptive diseases in a skin clear in the evening, may be covered with rash in the morning; all these point to the fact that vaso-motor and sympathetic action persists when the rest of the body is asleep.

Dr. Sawyer of Birmingham, England, divides insomnia into three types, psychic, toxic and senile. In the psychic form there is an unnatural excitation of the cerebral cells, an undue cerebral activity, a hyperaemic condition which is best relieved by tonic treatment, rather than by sedatives; a change of work and of scene, exercise, good food, ergot or digitalis, these are better than chloral or bromides.

In toxic insomnia, the poisonous agent, whether tea, coffee, tobacco, alcohol or whatever it may be, must be eliminated, as it is the cause of the increased cerebral vascularity, producing the wakefulness. The senile degeneration of cerebral arteries, makes these cases difficult to relieve by drugs or otherwise, but in any form of insomnia, it is well to remember that it is not advisable to use any of the opium preparations.

It would be of interest perhaps, to give consideration to many other forms of disease in which the sympathetic is involved, as in spinal cord and cerebral lesions, in diabetes, pigmentation, etc. etc., but lack of time forbids.

For much of which I have brought to your attention, I am indebted to the work of Dr. E. Louge Fox of England.

The Friedmann Laboratories for Tubercular Research have been organized and incorporated under the laws of the State of Wisconsin, with laboratories and offices at 3631 Wells Street, Milwaukee, Wis.

The treatment for tuberculosis in all of its manifestations, discovered by Dr. Friedrich Franz Friedmann, the eminent German Scientist, will be demonstrated at this laboratory, in the complete scientific method prescribed by him, by physicians specially instructed in the use of the vaccine.

"The vaccine is simply a homogeneous emulsion of live avirulent tubercle bacilli in plain, sterile, distilled water. The germ was isolated several years ago from a turtle and the culture has been maintained since that time by transplantation on artificial media, according to the usual procedure."

We will be pleased to have physicians visit the laboratory at any time and will be most happy to show them our case charts and let them examine cases treated in this vicinity, and afford them all opportunities to watch these cases.

We respectfully invite correspondence and will promptly answer any question on the subject. The Friedmann Laboratories for Tuberculosis Research.

When applying plaster-of-Paris immerse the bandages, on end, in a basin of water, deep enough to cover, one at a time as needed. As the bandage is lifted out, cover each end with the fingers to prevent loss of the plaster. Squeeze gently and pull off the raveled strands.

MISCELLANEOUS

PSYCHASHTENIA, OBESSION, DEVILS, OR DEMONIAC POSSESSIONS.

By W. S. Leach, M. D., Roseau, Minn.

We might say a lowering of the psychological tension will produce certain psychasthenic disorders as irresistible fears, thoughts, and irrational impulses but closely allied to these pshchophysical manias is the one of absolute obession or a possession of one's self by an outside force. As a rule the differential diagnosis goes undiscovered; but there are learned men in several parts of the union today who are in obscurity but are able to make a rapid and sure differential diagnosis. They are pushing forward their discoveries as rapidly as the lack of enlightment of the age will permit them. There is great difficulty in explaining to the public the mode of therapeutics for if erroneously grasped the number of maniacs will be seriously augmented.

Through a reliable source I am informed that not one physician in a thousand believes in the law of obession, however true this surmise may be, I will venture to prophecy that before the disappearance of the present generation that the physcian who does not believe in obession will be the exception. Delusions and ignorance reluctantly die; but the old proberb about truth being crushed to the earth will rise again is once more being verified. Desire is such a strong attribute that it is almost impossible to believe a thing we do not desire. Our pride, now as it has been many times in the past, is lurking under a threadbare cloak.

I have given this subject special consideration during the past twenty-five years and what is set forth in this manuscript is based on first hand knowledge. Space in a journal article forbids us to even give a preliminary survey of sensation and other physical laws which we can find in our standard authors. Our article takes us into regions beyond the physical.

Without taking the time and space to submit to you the proof I will request you to admit the premises that there are other worlds in our presence existing concentrically. If this is a difficult conception, think of the air as filling all space, and then of magnetism filling the same space, and then the ether respectfully occupying this center. This being done cast all aside and think of an independent world occupying the same space with new conditions, new animals, forms, and men of either a higher or a lower vibratory consistency. The worlds are there and may be known to you intuitively long before you can grasp the conception mentally.

These regions or worlds can be and are being entered daily by men, some in the right way and many in the wrong way. Overlook any seemingly egotism when I state that I am familiar with every phase of hypnotism and mesmerism, and I will give to you, men of science, this warning to have absolutely nothing to do with hypnotism, so called "spiritualism," table tipping, mediums, and their ilk. Literally, they are counterfeiters of the true and they are here condemned in the strongest possible terms. Their fruits are demoralization, superstition, and the most far-reaching and damnable slavery man can conceive of.

We will give you nothing but the truth and when we are sure we are not throwing pearls before swine and that the proper use will be given, experimental proof will follow. The healing art is on the verge of many revolutions and surgery will suffer greatly. It is the same old story; higher laws vs. lower laws.

The number of worlds and regions will not concern us at present. For convenience we will use the words regions and worlds interchangeably, and will make no effort in this communication to explain how these worlds can be entered by a wide-awake man except that the port of entry is at the junction of the sublimal with the supraliminal self.

First there is our immediate presence, as we are cognizant of, the physical or form world, then the Soul World, Astral World, and the Radiant or Spiritual World. There are other worlds and their various regions but I cannot claim personal experience with them. I here name only what I am able to conscientiously sense and set apart. Each of these concentric regions, like the first or physical world is peopled with forms of things and animals. Our physical is essentially a form world. The others vary and some are extremely evanescent compared to our laws.

The special form of obession I wish to call your attention to will bring us in touch with the astral world and the illustration following is one recently brought before a Board of Inquiry of which I was one of the examining Board. If you have knowledge of these spheres as mentioned do not confuse the illustration as one taking place in the soul or in the spiritual worlds. Some call all beyond the form world spiritually which is erroneous. The soul world is the easiest of all superphysical worlds to enter but in my opinion the astral is the one the sick and the unguarded more often fall into.

The person falls into a passive condition by reason of vexations, ignorance, hate, undue excitement, disease, and the unseen force be it invisible thing or man takes partial or total possession of him. The "Thing" whether it be devils, monkeys, or angels did not produce the lunacy but were invited by reason of the physical or mental defect. The impressions of delirium tremens fall under a different classification. Obession is common.

To the man who is thoroughly prepared to view or function on the astral plane, region, or world, he meekly and without fear wills that all other regions be set aside temporarily. Instantly the great astral or the great and golden landscape opens to view. New things, new people, and new forms are seen and otherwise sensed, all partaking of the nature of a new world and subject to new laws. Being prepared for the sight he remains master of the situation, and the often he enters the easier does the door open. Now what happens when this first view is made by an unlettered, unprepared neophyte? He may see the auriferous landscape suddenly unfold but at the very entrance, at the very threshold he meets face to face ready to run right into him or over him that which he least expects. It may be grotesque man, animal or "thing." This is the "thing" on the threshold which Lytton so ably describes to the initiate. Our victim on seeing falls back to his physical existence dumbfounded, confounded, and bewildered. Hour after hour, day after day, night after night, the image of the thing which eclipsed anything he ever beheld on the physical plane is uppermost in his mind. Its transcendent appearance weighs heavily until he begins to suffer from anorexia, insomnia; and hyperemia of the meninges supervenes. Sooner or later the passive condition of his system increases and his real ego may again fall to the astral plane to be met by the same or other figures. The more he thinks of the "thing" the greater and more absorbing does it grow feeding like some fierce vampire on his real life. There is a well known law which governs the growth of these

demons, a description of which we will give later. It is no theory but self-demonstrable facts.

The sensation of hearing is more often the one in jeopardy than sight. The patient may be of middle age, man or woman, probably from the rural district. As he comes in we first notice the fatigued facial expression, tired radial pulse, insomnia, nervous, suspicious of all surroundings, pupils staring and dilated simulating the Argyl-Robertson pupil. The pupil being the window of the soul not responding to light while its master is not in situ. They are loathe to acknowledge that they sense unusual things such as seeing things or hearing voices. As the astral demon or elemental may simulate some of the neighbors the patient may readily make an accusation, otherwise his confidence will be hard to obtain on account of that which at first seemed so preposterous to him. Unknowingly and ignorantly the patient is endeavoring to live simultaneously in two worlds or separate planes of existence. Being ignorant of the laws of the astral world he lifts a knife on the physical and plunges it repeatedly at the phantom on the astral plane. Unable to free himself suicide is resorted to or reason becomes entirely dethroned. The elementals or phantoms of the victim can be seen by one who has been properly trained. The friends or neighbors by the aid of a local board of insanity forthwith commits the victim to a state institution where he generally remains for life. If the Elementals or demons of obession are not removed the disorders of the physical form alone being removed will not necessarily cure the paient, for it is impossible to remove the physical disorder without removing the elementals first.

It is a well known fact that some people have greater impressional capacities than others. The greater the cultivation and the more increased education the more sensitive the people become. A savage may not be able to sense the disharmony in a musical selection while the expert musician would perceive and suffer at every discordant note. I have met children and have a patient now under three years of age who has "second sight." Its proper attainment requires profound study and a great amount of special work. Obtained in any other manner it will like stolen gold prove a curse to possessor and friends. There are obessions from other regions than the astral. We will later attempt to describe the formation and growth of some of these demons and elementals.

Collateral Ref. Goethe's Faust; Bulwer Lytton's Zanoni, and The Haunted House; Muller's Physiology of the Soul; Hartman's Black and White Magic; The Great Work; Cosmoconception, et al.

A PLEA FOR CHRONIC DISEASES.

By J. A. Burnett, M. D., Hartshorne, Okla.

A short time ago I placed the following on my professional card and letter heads: "Special Attention to General Chronic Diseases and Diseases of Children." The reason I did this was because I prefer to study and treat these diseases.

In this article I will discuss chronic diseases only. For a discussion of diseases of children see my article on "Diseases of Children," Medical Summary, September, 1913.

In my opinion chronic diseases are somewhat neglected by the general medical profession and this is why the various forms of so-called "drugless healers" have flourished to such an extent. When reputable physicians fail to show much interest in any class of diseases this class of case is sure to

fall into the hands of the so-called "drugless healers" who as a rule specialize on the subjects which are usu ally neglected by the majority of regular physicians. The so-called drugless healers have as a rule been educated in a two or three months correspondence course.

Most of the drugless healers evade the law by claiming they do not use medicine hence are not practicing medicine. "Drugless healers" (of various names and kinds too numerous to mention) often specialize on chronic diseases and have done so for many years which in one way is a detriment to this class of diseases for many physicians will not devote special attention to this class of diseases because they think it sounds too much lke quackery.

At the presnt time I do not know of a single professor of chronic diseases in a single medical college in the U. S. There is not a medical journal published in the world devoted exclusively to chronic diseases.

As far as I know there are only three medical books in print on chronic diseases. The three books are Hahnemann Chronic Diseases, King Diagnosis and Treatment of Chronic Diseases and Sim's Talks on Chronic Diseases.

We have medical journals devoted exclusively to several single subjects as on the eye, skin, etc. We have many books on certain classes of diseases or on separate diseases as for instance there are now over one hundred different books in print on diseases of the eye. Some of the diseases of the eye have a whole book on the one disease. There are over forty different books now in print on tuberculosis.

A similar explanation could be made with various other diseases and subjects and as we have had such an extensive lot of medical literature on so many different subjects separately divided why should we not have such a little book published alone on chronic diseases. Of course in medical literature in exhaustive works all phases of a subject is touched upon more or less and a physician interested in chronic diseases must wade through a vast amount of medical literature and cull out what he wishes to learn. A physician interested in most any disease or subject except chronic diseases can select works wholly devoted to the subject.

As for instance look at the vast amount of literature on tuberculosis. How long would it take a physician to read all the literature on this disease that is published separtely from other literature. We have works on pulmonary tuberculosis just one form of the disease that are of octavo size and cost $5.00.

We have such a vast amount of literature in medicine that extremely few physicians can afford all that is in print and even if he was financially able to afford such a library he would never have time to read all on hardly any one subject. We need smaller works on separate subjects striking the essentials only, leaving out absolutely all that is not proved.

DOVER POWDER.

By W. T. Marrs, M. D., Peoria, Ill.

There is no better hit-or-miss remedy for general ailments than the old-fashioned Dover powder. It represents powdered opium 10 parts, ipecac 10 parts and milk sugar 80. As an all-round pain-reliever, it is a good one. It is safer than morphine, codeine, heroin and other anodyne drugs. When the patient's pains are in a measure assuaged and his neuro-vascular system relaxed, the remedy palls on him; he becomes nauseous and will not continue the medicine. It is therefore safer than many other calmative drugs.

There are few people who develope a habit for Dover powder.

Dover powder is a good case drug. It is a good one for the shelf if one does any dispensing at all. In powder, tablet or syrup it is as reliable as any combination that can be put up for cough. Any medicine that will allay cough must contain an opiate; in addition to the opiate, the ipecac loosens the cough and favors expectoration. In pneumonia Dover powder is an excelent remedy. It was the "sheet anchor" of the old-time physician in this disease. Besides relieving pain and assuaginy the cough it has valuable diaphoretic and diuretic properties. The ipecac counteracts the drying and checking effect upon the secretions exerted by the opium; the milk sugar dilutes these two drugs and makes absorption slow and therefore more easily tolerated by the stomach.

DIET IN ACUTE RHEUMATISM.

Promote free elimination by the kidneys, skin and intestines; give water very freely.

During the stage of fever a strict milk diet, or bread and milk diet, is best. If patient cannot take milk, give broths, free from fat, flavored with vegetable extracts, and the various cereal gruels. Animal broths and meat extracts are to be avoided.

For the thirst, which is one of the prominent symptoms, bland or acid drinks may be given freely. Lemonade, either plain or with the addition of a little bicarbonate of sodium, is especially to be recommended. Buttermilk and kummys are also useful.

Until convalescence is freely established, milk and farinaceous food should be the sole diet.

Return to solid food should be gradual, and for some time the patient should abstain from eating meats and sweets.

In all cases of rheumatism alcoholic beverages should be forbidden.

VACCINES IN THE STOMACH.

The study of snake venoms pretty definitely proved that the gastric juice destroys them. There is quite an organic relationship in structure observed between them and some of the substances used as vaccines. Vaccination against smallpox has been demonstrated to be non-effective when employed by the mouth. Some claim has been made that diphtheria antitoxin can be effectively employed in this manner, but the method has been practically abandoned. Now Moellers has concluded that tuberculin is not effective when administered by mouth.

First.—In complete cleft of the palate with single hare-lip, close the bones within the first three months, preferably within the first month.

Second.—Close the lip from four to eight weeks later.

Third.—Close the soft palate at fourteen to sixteen months old. This applies in case of cleft-palate unaccompanied by hare-lip.

Fourth.—Use no material for sutures that can absorb and retain secretions. Use only silver wire, lead plates and horse-hair, and the results of the operation will usually be successful.—T. W. Brophy, in The Lancet-Clinic.

Intratracheal anesthesia (Meltzer) is quite acceptable for operations other than intrathoracic. The etherization is almost automatic, danger of over-etherization is minimized, and coughing, straining and mucous accumulations are obviated.

The Wisconsin Medical Recorder

F. W. VAN KIRK, M. D., EDITOR
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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 JANUARY, 1914 No. 1

In January, 1913, I first became associated with Dr. J. P. Thorne in editing the Wisconsin Medical Recorder. This work was new to me, but after carefully considering the matter I saw that the field of opportunity was large, so I decided to see what an effort of twelve months' work would bring forth. The year 1913 passed, and was in every way most satisfactory to all those interested in "The Recorder," not only the publishers and editorial staff, but the subscribers as well. We have done our best during the past year to give our readers just what they were looking for, and we have been fortunate in securing articles on live subjects from some of the best authorities in the country. With the January, 1914, issue of The Recorder I become the editor and Dr. Thorne becomes associate editor. I am sure all the readers of this journal will be glad to know that Dr. Thorne will still be actively interested in the publication of The Recorder, and that will insure you the high class of medical reading that you have always received.

It will be our aim during the year 1914 to give you even better articles, if possible, than in the year just past. Our success during the past twelve months has been due in a large measure to the splendid spirit of co-ooperation which our many readers have shown, and I trust this spirit which means so much to any enteprise will continue throughout the coming year. I again urge all our subscribers to boost The Recorder and make it your own journal,, and you can do that by sending us copy at any time, and we will be glad to publish the same. I am sure that you all have something good up your sleeeve. Let the other fellow have the benefit of your experience and do not be afraid to send in reports of interesting cases or copies of articles written by you for your local medical societies. Get into the game and do some writing. The man that writes is surely to be one who is abreast of the times. These days it is the men who are up and doing that win out. Let us hear from every subscriber this coming year, if not with an original article or report of a case, with at least a letter letting us know how The Journal is pleasing you; and any suggestions you may have to make along any lines will be most graciously received. We are here to please our readers and if we know their wants will do our part to more than fulfill our part of the program.

♣ ♣ ♣

Equal parts glycerine and castor oil in small doses daily, is indicated in subacute diarrhea.

ABSTRACTS

DIPHTHERIA CARRIERS.

Since diphtheria antitoxin has come into general use quarantine of diphtheria has come into general use quarantine of diphtheria is irksome, says W. A. Womer, New Castle, Pa. (Journal A. M. A., December 27). The patient is quickly cured by the use of antitoxin, but the tact remains that the diphtheria organisms may still be found in the throat and the patient be dangerous to others. It is possible to tell in ordinary cultures whether the bacilli are virulent or not, and quarantine has to be continued sometimes for an inconveniently long period till the cultures become negative. He notices the literature on diphtheria carriers and gives the result of his experience to the use of staphylococcus spray in lessening the period of quarantine in the winter of 1912 and 1913. The spray consisted of a bouillon culture of S. aureus at least twelve hours old, or a fresh suspension in salt solution. It was prepared in the municipal laboratory and delivered personally to the attending physician or nurse with explicit directions as to its use. Only one strain was used; the directions were to spray copiously both nose and throat three or more times a day and not use any other treatment. A summary of the results is given and the following conclusions end the paper: I. The use of the spray caused no unpleasant symptoms. 2. The use of the spray did not appreciably lessen the period of quarantine. 3. The preparation and distribution of the spray entails a large amount of work if there are many cases. 4. Apparently most of the carriers do not spread the disease after sixty days from the day the disease begins. 5. Public health officials could work more effecively if they had some practical method of determining the virulence of diphtheria bacilli found in the throats of carriers.

CIRCUMCISION.

A. L. Wolbarst, New York (Journal A. M. A., January 10), cobats the view expressed by the late Professor Mass and Dr. L. Emmett Holt, that ritual circumcision as practced by the Jews, is insaniary. The case of ritual circumcision tuberculosis reported by Dr. Holt and the forty other cases of which he has found reports, Wolbarst claims, are only an extremely minute proportion of the millions of children who have undergone the operation, and the danger of infection is only incurred when the rite is performed by the Mohelim who still adhere to the ancient practice of stopping the bleeding by sucking the edges of the wound. This is not an essential part of the rite, and he asserts that the Mohelim themselves are anxious to avoid any untoward accidents and are desirous to be instructed as to the necessary sanitary precautions against infection, and that steps are being taken to bring this about. Before condemning the practice in toto it is well he says, to look at the sanitary advantages. These are thus stated by him: 1. It is a great aid to cleanliness of the genitals. 2. It is a decided prophylactic against infection with syphilis and chancroid. 3. It prevents in great measure the development of venereal warts, herpes, epithelioma and other growths. 4. It offers a diminished tendency to masturbation, convulsions and other nervous results of local irritation. 5. It diminishes local complications in the presence of venereal diseases. 6. It makes the 'fourth venereal disease' impossible. 7. It prevents the development of phimosis and paraphimois, with their attendant complications.'' He has found that, while his Jewish patients

suffered from gonorrheal infection like others (or even more according to his tabulated statistics), they appeared to be markedly less liable to syphilis and chancroid; and he supports this by written opinions of his professional colleages, including a number of the best known specialists in dermatology. All the advantages of the operation that are claimed by him are gone over in detail and he considers himself justified in the claim that "circumcision must be considered one of the most beneficent measures ever devised for sanitary purposes in human beings, and it is to be wondered at that there should exist, at this late day, physicians who stand ready to condemn the practice."

ITREPTOCOCCUI ISOLATION.

The importance of the streptococcus in mixed infections and the difficulties experienced sometimes in directing it in cases in which it may be an important factor, induced L. L. Ten Broeck, Minneapolis (Journal A .M. A., January 3), to attempt to utilize the special susceptibility of the peritoneum to streptococal infection described by Murphy for this purpose. It was thought that by grading the dose the peritoneum would fall a prey to streptococcus even before the other pathogens and that the characteristic dry peritonitis or retroperitoneal cellulitis would be produced. In a case of nasal disease in which only the Micrococcus catarrhalis had been found by a competent bacteriologist, he injected mixed growth cultures made from the diseased bone into a rabbit and produced a dry peritonitis yielding a pure and intensely virulent cultures of streptococcus. "The vaccine prepared by the bacteriologist was impotent. That from the peritoneal exudate was not only helpful in he asthmatic condition, but reduced the blood pressure from 175 mm. to 145 mm." Ten Broeck has used this method in four cases in which it not only promptly cleared up the diagnosis but was also the basis for life-saving treatment. He does not advise its use to the exclusion of other approved methods or claim absolute priority for himself in originating it as he has learned that Cole has used a similar method, using rats, for the isolation of the pneumococcus. The method can be applied in any laboratory and its use, he says, "will undoubtely unmask the real bacteriologic cause or virulent or persistent infections.

♣ ♣ ♣

At Waukesha, Wis., there is located one of the finest sanitariums for the treatment of nervous diseases in this country, an institution which the state of Wisconsin and its professional men are proud of. The Waukesha Springs Sanitarium is a new three story fireproof building of modern construcion, located in one of the most charming spots in one of the best known health resorts, in the United States.

It is surrounded by a park of some twelve acres, so that all natural advantages of light and air are procurable. The location of the city of Waukesha with its three trunk lines of railroads and interurban coming into it, gives splendid facilities for reaching the city, and being less than one hundred miles distant from Chicago is easily reached from any point of the country.

The sanitarium is especially desirable for nervous invalids who need quiet, rest and the healthfulness of such a place. It furnishes just the conditions which are indispensible, in the care and management of nervous diseases.

The institution is in charge of Byron M. Caples, M. D., as superintendent, under whose direction the sanitarium has attained an enviable position with the physicians of the country.

THE DOCTOR'S LIBRARY

ANATOMY AND DISSECTOR IN ABSTRACT. By Stewart L. McCurdy, A. M., M. D., Professor of Anatomy and Surgery (Dental Department) Uuniversity of Pittsburg; Orthofedic Surgeon, Presbyterian and Columbia Hospitals, etc., Pittsburg, Pa., 1913. Fourth Edition, Leather, 375 pages, illustrated. Published by Medical Abstract Publishing Company, 8103 Jenkins Arcade Building.

The small volume will be found a ready work for reference by physicians and is most valuable for those men who are preparing to take a state board examination. The student will find it of great service in reviewing his work on Anatomy and Dissection.

The last 150 pages of the work are devoted to the "Dissector in Abstract." This addition to the previous editions makes it of value as a reference work and should find for it a place on every practitioner's desk.

A COMPEND OF DISEASES OF THE SKIN. By Jay F. Schamberg, A. B., M. D., Professor of Diseases of the Skin. Philadelphia Polyclinic and College for Graduates in Medicine. Philadelphia, 1913. P. Blakiston's Son & Co., 1012 Walnut Street. Cloth, 302 pages, 112 illustrations. Fifth edition, revised and enlarged. Price, $1.25 net.

The fact that this is a work that has exhausted four previous editions, speaks the popularity of this Compend by Schamberg, and it is another valuable addition to the already long list of Compends published by Blakeston's, which stand pre-eminent as an aid to students.

This edition has been both revised and enlarged. The illustrations are many and typical of the cases they illustrate. It is the most exhaustive Compend on the Diseases of the Skin that has yet appeared, and is invaluable to the student as well as the busy practitioner, who will find the detailed treatment set forth of great aid to him in his office work.

AMEBIC DYSENTERY.

This disease may be encountered anywhere in the United States, and is not a strictly tropical affection. It is necessary, in making a diagnosis, to immediately examine the stools while the motility of the organisms continues. This puts the laboratory tests directly up to the attending physician, in most cases. And the matter of laboratory diagnosis is more difficult than appears from casual reading.

Fortunately, the ipecac treatment is so nearly a specific in this disease that one is justified in employing it in cases of chronic diarrhea or diarrhea alternating with constipation, and we may do so without recourse to laboratory examination, although always better to obtain laboratory confirmation.

Put the patient to bed and upon a liquid diet. Flush out the bowels with a saline cathartic. Have a good druggist prepare 12 to 15 salol-coated 5-grain capsules of high-grade powdered ipecac. Allow the patient no evening meal, but have him take half of the capsules, with a very little water, giving a small dose of opium as well. Two or three hours later give the remaining capsules, thus giving 60 to 75 grains. Have patient lie on right side. Repeat the treatment for three nights; then reduce dosage rapidly, but continuing some ipecac for a week. Ipecac is so effective that some cases clear up after only one night's treatment. Emetin, hypodermically, is also used if ipecac is not tolerated.

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CHEMICAL COMPOSITION OF FOODS

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

The various foods of vegetable origin exceed both in number and variety those demanded from the animal kingdom. As already mentioned, all the necessary elements of nutrition are to be found in a well-chosen vegetable dietary. The only reasons for the popularity of the animal foods lie in the mistaken notion as to the amount of protein needed by the body, and in the habit-forming character of the animal extractives.

While the vegetable foods contain the same proximate principles as do the animal, namely proteins, carbohydrates and fats, the proportion in which these occur differs considerably. As a rule the carbohydrates are in excess of the proteins, and usually to such an extent that in order to get a sufficient amount of protein an excessive amount of starch is taken at the same meal. This, however, is not as serious an objection as may appear at first. For usually the excess starches are not utilized, and passing through the bowels, act mechanically to fecilitate evacuations. Even if digested, the waste products are only dioxide and water, which are easily execreted. It is much easier to indulge in an excess of carbohydrates than in an excess of proteins, which is the case in animal food, as the waste products of the latter cause the body much extra labor to excrete.

The extractives or products of cell-death, which are such an objection in animal foods, are of course absent in vegetable foods. Their place is taken by the so-called nitrogen-free extractives, sugars, gums, etc, which are usually carbohydrates and like the starches become oxidized into carbondioxide and water. The vegetable sugars are of various kinds, principally glucose, levulose, caccharose and mannose, while the animal sugars consist of lactose and inosite, or muscle sugar. Cellulose, also a carbohydrate, is not so digestible as the connective tissues of animal origin, but serves a useful mechanical purpose in giving to the feces the necessary bulk.

The vegetable proteins to some extent resemble those of animal origin, but show marked differences in other respects. They seem to give rise to the same decomposition products. Vegetable albumin and vegetable casein occur; gluten is another plant protein of common occurrence, and a nuclein also exists. Other nitrogenous bodies occurring in vegetable substances are asparagin, amygdalin, leucin, allantoin and lecithin.

Mineral salts occur in about the same proportion. As a rule potassium salts are more plentiful than those of sodium; for this reason it is usually necessary to add sodium chloride to vegetable foods. Other salts are calcium

and potassium phosphate, potassium, sodium and calcium carbonate and magnesium phosphate. All of these salts perform a useful function in the economy, not the least of which is to neutralize the acids set free by the decomposition of proteins.

The various classes into which the vegetable foods may be divided are the cereals, legumes, fresh vegetables, fruits and nuts.

Cereals— These undoubtedly form the most important group. They are eaten in many different ways, possibly the chief among these being the form of bread. Wheat, rye, oats, barley, buckwheat, rice and Indian corn are the most common, the first named being extensively used. Their percentage of protein runs from 7 to 15%, rice having the lowest and wheat the highest proportion. The carbohydrate percentage varies from 66% in oats to 85% in rice. This does not include cellulose, of which constituent oats have the most (10%) and corn the least (1.7%). Oats contain most fat (5%) and rye the least (1.7%). The percentage of mineral salts runs from 3.2% in oats to 1.1% in rice.

These cereals or grains when ground finely are known as flour. The operation of grinding, by removing the cellulose cover of the grain, makes the contained starch more accessible to the action of the digestive juices. It is customary to dispense with the outer portions altogether in the so-called white or patent flour, while they are retained in the whole wheat or graham flour. Much argument has arisen as to the relative value of the whole wheat over the white or bolted flour. As a matter of fact it contains ½% more protein, but more undigestible residue. It must not be forgotten, however, that this same indigestible residue serves a useful purpose in exciting peristalsis. The laxative value of whole wheat bread is well known.

When flour is mixed with water, gluten is formed from the globulins, and a sticky mass known as dough results. When this is formed into loaves and baked, the resultant product is known as bread. Not all grains are suitable for bread-making. Among these are rice and oats, which are comparatively poor in gluten or rather its antecedent globulins.

It is customary to mix some substance with the dough which while the bread is baking will give rise to the production of carbon dioxide gas. This gas, seeking to escape, burrows and tunnels numerous cavities through the loaf, thus giving to bread its usual spongy character. The agents used for this purpose fall naturally into two classes. The most common is yeast in some form or other. This by acting on the sugar of the flour produces carbon dioxide and alcohol, with small amounts of lactic and butyric acids. A small amount of dextrin is formed from the starch by hydrolysis and some of this is converted into sugar, which is further acted upon by the yeast. The final test of the baking expels the carbon dioxide and alcohol, kills the yeast and to some extent coagulates the albumins, especially in the outer portion of the crust.

The second class of agents comprises the various baking powders, and they are chemical in their action. They depend on the release of carbon dioxide by the action of an acid on an alkali, usually sodium potassium, or ammonium carbonate, or by the simple action of heat on the latter. It is obvious that where such chemical decompositions are involved, a salt is produced by the action of the acid on the alkali, and this salt will remain in the bread as a residue.

There are three principal varieties of baking powders, depending on the acid used to decompose the bicarbonnate. The first or cream of tartar

powders depend upon tartaric acid or acid potassium tartrate; the second or phosphate powders upon phosphoric acid, and the third or so-called alum powders upon some form of alum. In the first and second varieties, the decomposition products being respectively tartrates and phosphates, there can be no objection, both of these salts being not only harmless but even useful to the organism. But in the third variety, or the alum powders, the residue will consist of sulphates, which are not beneficial. As a matter of fact, the manufacture of alum baking powders is prohibited by law in some countries, notably Germany.

Besides the compound baking powders, sodium bicarbonate alone, or potassium bicarbonate, the latter under the term of saleratus, are used, the heat of baking being depended upon to produce the gas from the salt.

Bread is a staple article of diet, and is a perfect food, with the exception of an insufficient amount of fat. For this purpose, it is always, or nearly always, used in connection with butter.

Legumes—These include beans, peas and lentils. The peanut, botanically considered, comes in this class, but from a dietary standpoint fits better among the nuts, where it will be taken up. They are the richest of all vegetable foods, their composition being approximately 30% protein, 1½% carbohydrate, 6% cellulose and 3% salts. Beans are richer in protein and fat than peas; the latter containing the most carbohydrate of the two. The above figures refer to the dried article. Green peas and string beans are poorer in protein, but more digestible than the dried seeds. The protein in the legumes is not gluten, as in the cereals, but more nearly resemble vitellin or casein.

Green Vegetables or Fresh Vegetables—Under this head come cabbage, turnips, carrots, parsnips, onions, beets, tomatoes, lettuce, green peas, string beans, spinach, asparagus, celery, etc. They all contain a large percentage of water, and are valuable chiefly for their salts, besides being a palatable adjunct to other food. They are by no means devoid of food value, however, as may be seen on referring to the table. Nearly every one contains besides some distinctive ingredient, of real or fancied medicinal value. Thus onions and garlic have expectorant qualities, lettuce contains a sedative, celery a nerve tonic, spinach is said to be rich in iron, etc.

While not strictly coming under this head, potatoes may be considered here, as they conform fairly close to the other roots in composition, which is 76% water, 2% protein, 21% carbohydrate, 1% salts and 2% fat. Although so small a percentage of it is nutrient, this vegetable continues to be one of the most staple articles of diet. It is particularly useful as an accompaniment to foods rich in protein, making up the carbohydrate deficiency.,

A vegetable deserving of considerably more attention than it is receiving is the sweet potato or yam, which is much richer in nutritive principles, particularly sugar, than the common or Irish potato. Its composition is shown in the accompanying table.

Fruits—These differ from vegetables by the much greater percentage of sugar, with less starch. They also contain considerable amounts of pectin or vegetable gum, together with various organic acids, chiefly malic, although other acids, such as oxalic, tartaric and citric occur, the latter particularly in the lemon or citrus family. As all of these acids ultimately become carbonates during metabolism, the value of fruits as an article of diet in acid intoxications cannot be over-estimated. No other food furnishes such a source of alkali units. The large amount of water which they, especially

the melons, contain, gives them additional value.

The chief foods available in this latitude are the apple, pear, peach, plum, apricot, cherry, watermelon, cantelope, orange, lemon, grape-fruit and banana. The latter differs considerably from the other fruits by its comparatively low water and high starch content. It is the most nutritious of all fruit, but does not take the place of the others as an alkaline producer.

The small fruits or berries resemble those already named in composition. They are the grape, currant, strawberry, blackberry, gooseberry, huckleberry, blueberry, etc. distinct drawback, which lessons their value, are the numerous small seeds, which being difficult of removal are usually swallowed and have a tendency to form starting points for intestinal concretions. This is added to by the fact that while the large fruits all possess a distinctly laxative tendency, the berries, especially the blackkberry, possess stringent principles which tend rather to constipate than otherwise. Consequently the large fruits should always be given the preference when possible. Attention might be called here to the fact of the strawberry possessing a principle which is very poorly tolerated by some people, even producing symptoms of anaphylactic nature, such as urticarda, etc.

Nuts—Next to cheese, nuts are the most concentrated food in use. They contain large proportions of protein and fat, with comparatively little carbohydrate. An exception is the chestnut, which is rich in carbohydrates. Like cheese, nuts are too concentrated to be used as an exclusive diet, but form a valuable source of protein in a vegetarian diet, being second only to the legumes in this respect. Attention may again be called to the peanut or earth-nut, which although in common use for years, is still hardly mentioned in works on dietetics. It is richer in nutritious solids than any of the other nuts.

Condiments—Most of these articles are not foods, but when used in moderation are valuable as a means of assisting digestion by increasing the flow of the saliva and gastric juices. As they are all of vegetable origin they may be considered here. They include such substances as mustard, pepper, ginger, curry, horseradish, etc. Used in excess their tendency is distinctly injurious, owing to their irritating action on the gastric mucous membrane.

Beverages—The beverages of vegetable origin are tea, coffee, cola and cocoa, All depend for their stimulating qualities on active principles, which are respectively caffeine, theine, cocaine and the obromine. Attention has already been called in previous article to the fact that some of these alkaloids, as caffeine, theine and theobromine are identical chemically with the xanthin bases of animal origin, and hence have a distinctively injurious tendency when used to excess. Besides the alkaloids, coffee is rich in aromatic volatile substances from which its agreeable odor and flavor is derived. These are destroyed by prolonged boiling. Tea is devoid of these aromatics, but on the other hand is rich in tannin, which is extracted from the leaves by excessive boiling, and gives the decoction a bitter astringent taste. For these reasons neither coffee nor tea should be boiled, but merely infused, i. e., their principles extracted by pouring boiling water over the dry substance.

While neither tea nor coffee possesses any nutritive value, but depend solely on their stimulating qualities for flavor, cocoa or chocolate has besides the stimulating action a high degree of nutrition, containing as it does 50% of fat and 12% of protein.

Preservation—Owing to the perishable nature of fresh vegetables, espe-

cially fruits, various processes of preservation are in common use in order to make them more permanent. One of these is drying, which if properly done is unexceptional, but two great sources of harm are the use of galvanized trays for this purpose, in which the fruit is exposed to the fumes of burning sulphur. The formation of zinc oxide which is taken up by the fruits makes this method dangerous, and wooden or aluminum trays should be substituted.

Preservation by heat is a common method, and is perfectly safe, where the containers can yield no poisonous substances, as for instance, fruit jars. But where tin cans, soldered with lead, are used, there is great danger, especially where acid fruits are concerned, or where through insufficient heating putrefactive bacteria remain, whose products act on the solder.

The addition of chemical antiseptics is mentioned only to be condemned. The two most active—salicylic acid and formaldehyde—are irritant poisons, even in small amounts when long continued. They also render albumins difficult of digestion. Their use should be absolutely prohibited. Other chemical preservatives in more or less common use are borax, boric acid, sodium sulphite, potassium sulphite, calcium sulphite, sodium salicylate, benzoic acid, sodium benzoate, amonium fluoride, pyroligneous acid and beta-napthol. It is hardly likely that any of these substances could be otherwise than harmful to the organism. If it costs too much to properly preserve the fruit by drying or heating, we must take the cheaper way of embalming it, even if the alimentary tract of the public suffers thereby.

INSANE IN WISCONSIN A TEST and a CURE

BAYARD HOLMES, M. D.
Chicago, Ill.

In many administrative functions Wisconsin leads all the states in the Union, but in the custody of the insane it is at the end of the procession. Most of the insane in Wisconsin are under county care and kept in the poor houses with idiots, epileptics and paupers. If the insane of certain kinds were boarded out and under supervision as they are in Belgium, France and Argentenia, their condition would probably be better than in states like Iowa, Illinois and Michigan under state control.

The University of Wisconsin has a reputation which the oldest universities might envy. It is in close proximity to the State Insane Asylum at Mendota. There would be a grand opportunity for scientific research into the causes of insanity.

Cooperation between the individual profesors in the university and individual physicians in the asylum at Mendota has been very satisfactory to individuals but fickle and unproductive of any real results. The cooperation must be more intimate and include a full and extensive laboratory for research into the causes, methods of prevention and means of cure of the insane. This laboratory should be under university direction and complete coordination with other university laboratories. Students who do work in psychiatry should receive academic credits and degrees in this research laboratory the same as in other departments of the University.

There are now 200,000 insane persons in the 400 public asylums in the continental United States. They cost the several states about forty (40) per cent of the several state budgets. Not one of the states supports a laboratory of research. When the New York leg-

islature established the Pathologic Institute there was great rejoicing among the friends of the insane and many anxious hopes looked to research for psychiatry at Ward's Island, but everything turned to hypnoidal philosophising and psycho-analysing. The same enthusiasm was aroused by the establishment of the Psychopathic Hospital at Ann Arbor and the Psychopathic Institute at Kankakee, and the same disapointments have followed.

Fortunately advances in science do not depend upon the officers of the states that would profit most financially by such advance. Some very remarkable and almost incredible discoveries have been brought forth during the past two years. These discoveries are likely to jog the psychogenic mystics out of their hypnoid, neophallic reveries and incidentally out of their comfortable beds in the state lunatic asylums that they hypocritically denominate hospitals.

The psychogenic mystics have the custody of the insane in the United States today. They have admitted to their custody 65,000 insane during the past year. Less than ten per cent of these insane the mystics allow are suffering from general paresis, a disease they reluctantly admit is due to syphilis. Twenty per cent or more of these 65,000 admissions are cases of youthful insanity, termed dementia precox. This condition the mystics aver is due to some "twisted idea" of a sexual nature, or else these persons were predestined to be crazy from ancestry or birth, one as mysterious as another. More than 15,000 youths of high school age are legally shut up in our 400 mad houses in the United States never to come out again. No case of dementia precox ever recovers. The "twisted idea" is riveted into the soul or mind or body so firmly that it never can come out.

Let anyone approach the dream compelling psychogenists (as I have done) at Ward's Island, at Ann Arbor or at Kankakee, with a proposition for the investigation of the physical condition of these 15,000 patients with dementia precox, and then for research into the agencies which might rationally lead to betetrment, cure or prevention of the disease, all on a scale adequate to rescue every ten years more than ten thousand youths from a relentless lifelong custody in our mad houses, and that one will see (as I have seen) the gentle philosopher's eyebrows turn up and a pained and pitiful expression will rise from within to his eyes as they turn from the pile of Freudian dream books on the mahogany table furnished by the state and his honied indictment of the sanity of the crude mechanistic groveler in laboratories and animal pens after a physical cause for insanity will sink slowly into one's consciousness (as it did into mine). The end of such a conference leaves one, (or it has always left me) with the same dull headache as the pipe-dream does. It takes me a week or two to get over an hour's seance with a dream interpreting psychogonists.

But what can one say? One out of each 500 citizens of the state of Wisconsin is insane today and either in the state asylum, in one of the county poor houses or in the care of friends. About three-fifths of these insane, probably more than 3,500 are sick of dementia precox, of which none recover. The average duration of life in asylums is eleven years. More than half die of tuberculosis. This dreadful disease is one which has no morphologic lesion discoverable at the autopsy. Until recently the diagnosis, easy enough in most cases, has had no objective tests or reactions.

It seems more than likely that the state is put to greater expense by the delinquencies of cases of dementia pre-

cox in jails, police stations and courts than it is in the case of committed cases in hospitals and poor houses. Many murders, larcenies and arsons are the early manifestations of dementia precox.

In May, 1912, Emil Abderhadden of Halle A. S., published his little book on the defensive ferments. In June he published a short article on its application to the diagnosis of pregnancy. At once this was taken up by gynecologists the world over.

Fauser of Stuttgart made a study of eighty insane persons by the use of this method and discovered that cases of manic-depressive insanity gave no evidence of defensive ferments. While every case of dementia precox gave a most remarkable and diagnostic reaction. Fauser's article was published in February, 1913, and it aroused the non-psychogenic alienists to a business unknown in American Psychopathic Institutes. In July Wegener of Jena gave his first report of the Abderhalden reaction in 200 patients. He confirmed Fauser's work in every particular. During the remaining months of this jubilee year for the insane, scarcely a week passed without some valuable contributions from some asylum in Germany, and now Wegener publishes his second report on 600 patients and controls still further verifying Fauser's first discovery, that the Abderhalden reaction is an exact and reliable test for dementia precox.

Now must the psychogenists give up the dementia precox patients to rational research for cure and prevention. Now must the several sovereign states that hold in custody the 120,000 citizens with this dread disease, do the right thing and institute adequate research for their liberation. The friends of the insane must demand this research.

It was by utilizing the results of medical research that Japan, a nation of the fourth class, conquered Russia, a nation of the first class. It was by utilizing medical research that the United States made the death rate in the canal zone lower than it is in the state of Wisconsin and built the canal, which the French would have done years ago had they reckoned with the mosquito.

It is quite within reason to expect that the problem of dementia precox will be solved by as simple a trick of reason and cunning as that by which the mosquito was caught in the act of defending the tropics from dominion of the white man.

Far be it from me to disparage the bravery of the Russian army and navy. Far be it from me to belittle the integrity or skill of the French engineers and workmen on the Isthmus of Panama. Far be it from me to condemn or depreciate the devotion, the forbearance and consecration of the present keepers of the insane in the United States. But to me there appears a better way. The scientific research and the method so victorious in the first two problems will, we may be sure, solve the last one.

Almost at the same time that our knowledge of the physical basis of dementia precox is established, a hopeful remedy is proposed. It is nothing less that the protracted production of an artificial hyperleucocytosis. Two to twenty cubic centimeters of a saturated solution of the nucleates are injected subcutaneously into the patient whenever the white count falls below 12,000. This injection gives no pain. There is a slight chill, the temperature rises to 103 F. and the leucocytes reach 20,000 or more. The patient usually gains weight and often improves in a mircaculous manner. Tube fed patients in a short time walk and feed themselves. Mute patients begin to talk and disturbed patients become gentle. Most patients take on weight. So far one third or more recover with some

defect. Halvar Lundval of Lund, Sweden, recommends the following:

℞

Natrium nucleinicum	100.
Acid Arsenicosum	.05
Hetol (Merck)	10.
Aqua dest.	400.

The remedy must be used for several months, and during the whole time the patient should have three good meals, and three lunches a day. The colon should be washed out every day immediately after breakfast with two enemas. The first one of four quarts of warm water, 110 F., to which an ounce of glucose (corn syrup) has been added and mixed. The second enema is of warm water only. Twice a day the patient should be taken out for a walk for an hour and a half, rain or shine. The patient should sleep in an open cold room. Until by research we learn more of the cause of dementia precox, these things should be done month after month, waiting for some unknown Moses to lead these 120,000 brothers sisters and children of ours out of a land and a bondage darker and heavier than that of ancient Egypt.

A SANE ALTRUISM

FRANK F. CASSEDY, Ph. B. M. D.
Portland, Oregon

I am neither a Socialist nor a Reformer, I am only a Philosopher.

For our economic and social ills there are remedies without number prescribed.

President Wilson, with his usual clearness of vision, in his speech before the joint session of Congress a few days ago on the regulation of trusts, touched the key note of the whole question of regulation when he said the proper method was to punish men for co-operate violations of law, and not merely fine the corporations a few dollars.

President Wilson and many other patriotic and far-seeing Americans vizualize clearly the fundamental cause at the bottom of our economic, business and social troubles, which overshadows all other contributing causes and influences.

Our Competitive System is the root of our national evils, and the evils of other nations. In these days we hear much of initiative, efficiency, and competition. Friendly emulation and effort is one thing, and destructive, inhuman, ferocious and savage competition in all lines of work as practiced by humanity today is a vastly different thing. It is a relic of barbarism. It is a relic of the cave dweller and the savage, when he sallied forth armed with a club for defense and to secure food. It is a monstrous creature of oppression which has fastened its deadly fangs into the very vitals of humanity. It has in these latter days made refined and cunning and unscrupulous savages of all of us. We overreach each other and call it business, we fly at each other's throats in a commercial way and call it commerce, we wreck small traders and manufacturers and call it "getting there," we duplicate plants, we multiply overhead charges and expenses, and in every way conduct ourselves like a pack of ravenous wolves which at heart we are. What has produced this insane, character destroying system, and why do we perpetuate it?

We accept it as a matter of course and each individual human unit goes into the mad, bloody fight determined to wrest all the wealth he can from his fellows. What is the result? Human depravity. Distorted ideas of mine and thine. False standards of conduct or rather no standards at all. But some objector says "Business men keep contracts and pay their debts." Yes so they do, but they are compelled to

do that for their own protection and business salvation. If they did less they could no longer stay and play in the game. But paying debts and keeping contracts is not business decency or morality by a long shot. It is the savage inhuman warfare which is destroying love and consideration in our hearts for our fellow men. Some objector says "We have organied charity, we as a nation pour out our money in times of great national or local disasters, we build great institutions for relief of suffering, we build homes for invalids and cripples." Yes so we do, but as soon as we have done that we go back to the mad scramble, and friendship, decency and love for our fellow man ceases when the battle begins anew. We grind the face of the poor and throw them the crust of organized charity, we rob the worker of his due share and then build libraries and research laboratories, we forget that every human being has a soul and appreciates kindly sympathy and words of encouragement, and in our efforts for "organized" instiutions and "organized" charity we fail to see that service by the individual giver is as essential as the acceptance of proper wages, decent personal treatment, and kindly treatment between man and man is to the recipient. Giving on a large scale and institutional giving impoverishes more than it helps, while the lack of personal contact of the giver with the recipient personally is a handicap to the giver and is destructive of kindly feeling on the part of the giver. We are victims of a bad system, which must be changed.

How can we change the system? President Wilson has blazed the way. Hold up his hands. Many men have buried their personalities in incorporated companies. They commit crimes and do monstrous wrongs on their fellow beings under cover of the corporation in which they hold stock. They shift the responsibility to the artificial man, the corporation. So President Wilson says this in effect. Our system has produced great abuses. Associations of men have used their power and wealth unfairly to oppress their fellows and have taken unfair advantage. How shall we stop it? By putting into prison the men who compose the corporation and are responsible for this dastardly and high handed robbery of the public. Fines are of no avail for either persons or corporations; imprisonment is the only remedy.

But we should go further than this. Penalize the corporation which has enriched its stockholders by robbery and fraud, by building government works which will compete with such corporations. There are some corporations, notably the Smelter Trust,, which owing to their ourageous charges for smelting and methods employed in determining various arbitrary charges and penalties, have put thousands of small miners out of business and compelled mines to close down because they demand practically all the values in the ores. The Smelter trust also beats down all opposition, and destroys all independent smelters which are built.

The only method of stopping this ferocious greed and robbery of groups of men is to imprison them, and destroy their business utterly by government works if they refuse to stop their nefarious practices.

Trusts are the legitimate progeny of our Competitive System, and now they have a strangle hold on the public, and it will require the most drastic legislation, the most persistent legal measures, with penitentiary sentences for the offenders, to even check the abuses which have grown up. Even if they are checked, without being destroyed, as soon as other men are in political control of the nation the same economic troubles will arise again and again.

A sane and honest co-operative

movement must be started, controlled and fostered by the government to permanently rid us of this Trust disease. When this co-operative movement is started it will gradually educate the people to co-operation and they will be glad to abandon the man-destroying competitive system. Other nations are far inadvance of the United States in real co-operation. Co-operative societies in England among the middle classes and wage earners have been in successful operation for years. If in England where the extremes of wealth and poverty, untilled and useless lands in the hands of the rich, and fearful grinding poverty are more in constant evidence every day and every hour, if in England I say there is any real, honest co-operation, it is certainly a reproach to our boasted civilization in the United States that we never had and never will have any real co-operation with absolute fair play for all members until the government, in the hands of strong, righteous men, lead the way with government co-operative societies, and take the rascals and robbers and debauchers of honest men by the throat and punish them by prison sentences.

Belgium and Holland are both being built up and their people made prosperous and happy by honest and efficient co-operation superviser and safeguarded by the government. Any co-operative method which stops short of a complete organization for showing best methods of production, and carrying the co-operative plan clear down the line until the produce or product is sold at a fair price, is defective.

Our government aids to commerce, farming, stock raising, are incomplete. They tell the producer how to grow things and animals, and then desert him and leave him at the mercy of the wolves who buy his produce. The simple fact is the government up to this hour has been in the hands of those who stacked the cards in the game. They did not want fair play and a good market. On the contraryy they wanted rigged markets and crooked methods to enable gangsters to fleece the producers.

It is far more important at this time to educate the people to market their products direct to the people through their own agencies. If the government would send out department men to tell the people of the importance of this, the selling end of the business, it would be far more effective than the levying of petty fines against commission merchants caught rigging the market by their combinations. It is better to put thieves and creeks out of business permanently than to fine them after they rob the public.

We are not making any progress by this plan. It is mere temporizing.

In this country we have three classes. The rich, the middle and the poor or submered class. The rich are attacking the present economic problem of the natoin in a way which will not interfere with grip on the people. They cannot see any merit in the proposition of co-operation as they have always had the bulk of profits and dictated the commercial methods of the nation, and naturally they feel secure in their position and do not wish to be disturbed. They are the only beneficiaries of our competitive system. John B. Gough, the great temperance advocate, once said that if society caught desperadoes throwing innocent and helpless people into a deep and rapidly flowing river the people would not only seek to rescue the helpless ones fruther down the stream and bring them to the shore in safety, but they would go up stream and kill the desperadoes who were destroying property. So in the correction of all economic evils the root of the evil must be eradicated. The rich and prosperous have an erroneous view of life;

they look through colored glasses, which distort their view and warp their moral, mental as well as their physical vision. They are the products of a vicious, unnatural and selfish system, and they naturally cling to a system which entrenches them securely in their position. For this reason any real co-operation will not come from the rich for their entire life, habits, business training and sympathies are with the class which they represent.

The lower class or the submerged class are helpless. They beat their hands against the wall which the system of competition has raised in helpless fury, and the only remedy which they know is force. They are fighting an unseen, intangible yet all powerful enemy, which has enslaved and engulfed them. The lower class observe the men who employ money and the power it brings also employ cunning, specious argument, and the strength of the governing class, to advance their own interests and compel by various combinations the lower class to remain subservient to the wishes of the monied men. Protest is of no avail, hence it follows that the submerged class are forced to organize and too frequently these organizations, imitating the combinations and methods of the organized rich, employ similar brutal and sinister methods to gain their ends. Both extremes of our human scale are progeny of our pernicious system—the competitive method. Both are fighting without mercy and in the most relentless way for the things they need or think they need. With the poor and submerged this need is real and is the expression of physical wants unsatisfied. With the rich and powerful there is no need, their brutality is merely the lust of power, and the natural result of years of despotic power abused, and used only for purely selfish purposes.

For these reasons we cannot look to either end of the social scale for real co-operative methods untainted with selfishness and despotism. Where then shall the real co-operative system arise?.

The great middle class composed of professional men and women, tradesmen and intelligent laboring men, are always have been the bulwark of every nation on earth. Neither rich nor poor, self-respecting and God-fearing, law abiding, intelligent, less swayed by impulse and temperament, with higher ideals and standards, with well defined moral nature, it is the great middle class which has ever preserved the best traditions of a nation, and preserved its liberties when threatened or assailed.

We cannot expect real co-operation from the favored class for they have already abused their power, and have used their wealth and strength to oppress the people, and have not hesitated to employ both the strong arms of law and government to carry out their sinister purposes. We cannot trust them, for they have always failed to give a just account of their stewardship.

We cannot trust the submerged class for they are embittered with the tyranny which has kept them down, and in their anxiety to wreak vengeance on their oppressors they would go too far and bring about a revolution. We do not want a revolution in a physical sense. We need education in the fundamental things of life which make for decency and fair treatment of each. We have wandered far afield. We have trained and sharpened our wits to cheat and defraud our fellow men, and have forgotten or never learend that there are such things as love for our fellow men, consideration for the man and woman who are not so fully endowed mentally, physically, and suffering from a serious handicap to start with. It is certainly a grotesque sight to see a talented and high-

ly trained man deliberately wreck and overreach his follow man less fortunately placed and endowed, to gain the confidence of a trusting humanity and deliberately abuse it. As long as the dollar mark is the sign manual of excellence just so long will such sinister freaks of humanity be tolerated in decent society, but thank God a better day is dawning, and whether you and I like it or not, in the near future such human wolves will receive the treatment which they so richly deserve.

An awakening is at hand. If the great middle class will preach this doctrine of sane altruism, or co-operative effort, with their motto that grand old slogan, "All for one and one for all," and organize men and women in all walks of life to work together, to produce and sell together, to eliminate and ostracise the men and women who do not play fair, for in union—sane, vigorous, well directed union in effort there is success mentally, physically and financially. Keep level headed men and women at the helm. Move slowly. In the course of co-operation when a snag is struck in the way of some misguided human unit who thinks he can exercise a monopoly, simply extend the co-operative plan, just as Belgium did, eliminate said unit and establish a selling agency to take his place. In this way he is put out of business, quietly and effectually, and he has no come back. He has abused his opportunity and deserves no sympathy. We must learn this lesson in the United States, and learn it quickly. It is such an effective and easily applied remedy that we have overlooked it.

There is no class of people who are closer to humanity than physicians. Their vocation is essentially altruistic, whether they will it or not, to great extent, and their influence for good over humanity is greater than members of any other profession or class. Physi- are in the nature of things more self-sacrificing and the only profession or business in the world who deliberately and constantly seek to destroy their own livlihood. Physicians depend on sickness for their support and yet it is said to their credit that they are in forefront of the fight to prevent disease and raise humanity to a higher physical plane.

Physicians should take more interest in the serious affairs of life, in politics and in modern conditions of production and selling of products of the soil and manufactured goods. Physicians live too much apart from the world, and are much centered in their work. Their opportunity for greater helpfulness to mankind is here. Physicians should preach and educate people in co-operation under strict government supervision. We have co-operation in the form of trusts in the hands of unscrupulous men who do not hesitate to ruin widows and orphans and to impoverish humanity so long as they collect their toll of blood stained wealth. Such co-operation we must get rid of. President Wilson's plan to imprison the men behind the trusts who are responsible for the iniquities practiced by the trusts is excellent so far as it goes, but the government should go further and when necessary organize government owned enterprises to supplant trust organizations and compete with them, and effectually kill them og. This would give them a good taste of their own medicine, and be most effective as a deterrant. The trusts have raised the hue and cry of panics and hard times if their graft and robber tactics were interfered with, so long and have the people so thoroughly cowed that it will require many years to remove that sense of fear from the public mind.

There are so many phases of the trust grip on the public that the ordinary man fails to see and take them

for their true value. For instance. I bought a suit of clothes from my tailor. He is a good tailor and a good man in a business way. The suit made by the American Woolen Trust turns out badly. It proves to be shoddy, and holes wear through the material in most unexpected places. It is no good. I take it back to my tailor. He takes it to the wholesaler and then the truth comes out. The American Woolen Trust puts it over on the manufacuter of clothing and the wholsaler. It fails to come up to specifications when delivered, but neither has any recourse. The reduction of duty will correct this steal by the American Woolen Trust. The trusts talk about American workingmen and how much they love them and then turn around and cheapen the cloth put into their clothing. They steal coming and going. The American people are rapidly being educated in the true facts of trusts built up on a robber tariff.

American business men of today cannot be trusted to organize co-operative enterprises. They have been tried and found wanting. The government must organize and conduct them. Government ownership of railways is in sight, and municipally owned public utilities are already a success. Predatory wealth has overplayed the game with a stacked deck of cards but their day of reckoning is at hand.

INSANITY, EMOTIONAL AND OTHERWISE

J. W. LOCKHARDT, M. D.
St. Johns, Wash.

It seems to me that Doctor Sawyer has given the readers of the Medical Recorder a furious fusilade of heterogenious affirmations and negations in regard to the question of "emotional insanity," that are, for the most part at least, entirely unwarranted by the well known facts in the case. How any man, be he professional or layman, of wide experience and careful observation, can doubt the existence of "emotional insanity" any more than he can doubt the existence of any other form of insanity, is far beyond my comprehension.

The question of sanity or insanity in any of it s forms can never be settled by illogical hot shot from a "slather gun" or by intellectual spatter work. The subject is of such vast importance that it requires the most considerate and profound attention of the world's great reformers, both in the profession and out of it; men of extensive observation and capable of mature and unbiased reflection and judgment. Here is a large field for the sociologist whether he be physician, clergyman, lawyer or layman,—all should be welcome, for "in the multiude of counselors there is wisdom."

While I am far from insisting that my observation and reflections on this very important subject entitles me to the degree of Master of Logic, yet I may hope to arouse the interest of men of greater ability to the end that this much neglected question should receive the attention in the medical press that it really deserves.

If surface indications, as revealed by the most reliable statistics, amount to anything ,this is an age of civilization (?) in which the proportion of criminals and insane persons to the total population is increasing at an alarmig rate. To every thoughtful and patriotic citizen the fact suggests—danger ahead—a danger to American civilization beside which the dreadnoughts of the world would be as popguns.

As there can be no effect without an efficient cause, it follows as a necessary corolary that, if there is now more crime and insanity in this country than formerly, in proportion to the population, there exists somewhere, somehow, in the hidden recesses of society an efficient cause or causes for it.

Is the cause of all this holacaust of crime and insanity so illusive that it can not be discovered? If discoverable is it of such a nature that it can not be eradicated? Are the causes so multitudinous that in order to root up the tares we must also root up the wheat? If these causes are discoverable and eradicable, what are the means most likely to bring about the desired result? To what extent are the several forms of insanity subject to the remediable influence of drugs or medicines? Or moral suasion? Of physical force, as now practiced in our hosiptals for the insane? Of diet? Of environment?

Before we commence to answer any of these questions we should be very sure in our own minds as to what constitutes insanity in any of its protean forms, as differentiated from slight degrees of mental obliquity, feeblemindedness, or idiotcy, no matter what the cause, for if we assume the mediocre intellect to be the normal type it is at once apparent that millions will fall below such standard of morality. Between the normal as established by such standard and the confessed imbecile or idiot, we find a constantly descending grade of intellect. Thousands of these persons seldom, if ever, act with the sound discretion characteristic of the normal type. They have their likes and dislikes, their sorrows and happiness, their loves and hates; and in most instances, until overburdened with cares, or ruined both physically and mentally by dissipation, they entertain laudable ambitions—but they never succeed in the accomplishment of any real purpose. In the great business world they are always, and of necessity, intellectual weaklings, human ciphers, useful in their sphere, but never normal and frequently insane. But who are insane?

But physicians are not only called upon as experts in cases where the prisoner at the bar is alleged to have been insane when he committed some crime, but also to sit as a member of some board of commission, to determine the mental soundness or unsoundness of persons alleged to be insane. It is my candid opinion that not one physician in a thousand is qualified, either by education or temperament, to act proficiently in such capacity. In most cases, however honest the physician may be, the judicial temperament, the sine qua non, of justice in many cases, is very deficient, if not entirely lacking. Such physicians should never, under any circumstances, be permitted to give expert testimony in so-called insanity cases, or have the liberty of the alleged insane intrusted to their care.

Of course there are very many cases of insanity so open, palpable, that they are susceptible of diagnosis by even a layman of ordinary intelligence; but surely there are many cases of neurasthenia in which the mental faculties are far below par, hysterical and emotional insanity, in the diagnosis of w hich the very elect may be deceived. In many cases the true diagnosis lies between mental obliquity, insanity or pure carelessness. I have had ample opportunity for observing some very interesting cases of this kind.

In closing I would say that it is my belief, taking everything into consideration, that the lawyer, rather than the physician, is the best qualified to determine cases of insanity. The question of motive or the absence of it comes naturally withing his province and his sociological and phychological studies qualify him for arriving at correct

conclusions. The natural bent of the physician's mind is toward the concrete facts of science rather than toward investigating the intricacies of the human mind.

I hope that this article will not fail to stimulate a profitable discussion of a very important subject in such a way as will insure to the great good of a very unfortunate class of people.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

AFTER PAINS.

If the case had been properly handled and the combination of Hyoscine hydrobromide gr. 1-100; Morphine hydrobromide gr. 1-4; Cactoid gr. 1-64 has been used judiciously during labor, there will be few, if any, after pains. To prevent, caulophylloid gr. 1-6 several times a day during the last two or three months of pregnancy, is indicated. To control and relieve the pains, should they occur, a combination of Macrotoid gr. 1-6; Viburnoid gr. 1-6: Geleseminine hydrobromide gr. 1-250, at intervals of an half hour for three or four does will relieve, as will either Hyoscine hydrobromide gr. 1-400; Morphine hydrobromide gr. 1-6; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-64; Caffeine gr. 1-32, or Hyoscine hydrobromide gr. 1-1000; Morphine hydrobromide gr. 1-64; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-128; Caffeine gr. 1-64. Cannaboid or codeine sulphate my be employed in some cases by preference. The uterine tonic suggested by Buckley, consisting of Aletroid gr. 1-12; Bryonin gr. 1-500; Caulopyhlloid gr. 1-6; Macrotoid gr. 1-6; Helonoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000, is usually effective in protracted cases. To insure involution, ergotoid, quinine or other contracting agents. In obstinate cases a pill consisting of Ergotoid grs. 2; Quinine sulphate grs. 2; Strychnine sulphate gr. 1-64; iron sulphate gr. 1-2, exhibited three or four times a day.

AGALACTIA.

Pilocarpine is the most active galactagog, but must be given with great care. A useful combination consists of Brucine hydrochloride gr. 1-64; Cactoid gr. 1-64; Avenin gr. 1, to be given three or four times a day. Massaging the beasts with a mixture of equal parts of cocoanut oil and lanoline is effective in some instances. Rich liquid foods with plenty of milk and a good salt preparation will frequently increase the milk supply.

ALBUMINURIA (SEE NEPHRITIS).

The cause should invariably be determined and corrected. Primarily the diet should be looked to. The following should be prohibited: Cake, pastry, pies, sweets, jellies highly spiced or rich food, cheese, duck, goose, beef-tea and meat essences and all red meats and eggs. The permissible foods are plain soups with rice or barley, fish, poultry (excepting goose and duck), mutton, butter, cream, fresh vegetables, especially onions and celery, skimmed or peptonized milk, buttermilk and farinaceous foods, as toast, old bread, rice, sago, macaroni. The beverages allowable are cocoa, weak black tea, cereal coffee, milk and seltzer and plenty of pure water. To relieve tension, glonoin. As eliminants, elaterin, apocynoid, pilocarpine, saline laxatives or a combination of Lithium benzoate, Basasmoid, Collinsonoid, Arbutin, of each 1-6 gr. with Oil of jupiter m. 1-24. To support car-

diac function, cactoid. As a general tonic the arsenates of iron, quinine and stychnine with nuclein. In functional albumnuria, neuro-lecithin. To act directly upon the kidneys and increase their function, arbutinigo 1-3 to 1, three or four times a day. If there is intestinal fermentation, the Bacillus Bulgaricus, in good quantities several times daily. If there is suppuration, after determination of the infecting agent the bacterins are very frequently indicated. Those employed are the Coli-Bacterin, Gonococcus-Combined-Bacterin, Pneumo-Combined Bacterin, as well as others, the use of any one to be based upon the bacteriologic findings. In some instances the autogenous vaccines are preferable to the stock.

ALCOHOLISM.

The primary indication in acute alcoholism is that of emptying the stomach, which may be accomplished by the hypodermic application of apomorphine or by the administration of a grain of emetoid by the mouth. As calamtives and hypnotics, the hypodermic application of Hyoscine hydrobromide gr. 1-100 Morphine hydrobromide gr. 1-4; Cactoid gr. 1-64, or, by the mouth, Hyoscine hydrobromide gr. 1-400; Morphine hydrobromide gr. 1-6; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-64; Caffeine gr. 1-32. The latter in small dose, frequently repeated to effect. To combat depression a full dose of oleoresin of capsicum of Capsicum gr. 1-7; Nux vomica gr. 1-4. Brucine may replace the nux vomica. To correct the gastritis due to alcoholic excesses, hydrastoid and juglandoid. As a cardiac support, digtalin, usually with strychnine in full dosage. To cause distaste for alhold, hyoscyamine or atropine, the former preferably, pushed until there is slight dryness of the mouth and dilatation of the pupils. Cactoid, with digipoten, may be employed advantageously to support the heart. The eliminants, those which will awaken all waste excreting functions, are indicated, and in every instance. To ncrease the bowel action elaterin, croton oil or the following combination: Aloin gr. 1-12; Podophyllin sulphate gr. 1-2; Croton oil gr. 1-64; Atropine sulphate gr. 1-100; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-250. To increase the hepatic function, emetoid, in full dosage to the point of nausea. Sweating to be induced by Turkish, hot-vapor or general hot baths, with pilocarpine, if the heart action is strong. As a hypnotic Sulphomethane grs. 5; Scuttelaroid gr. 1-3; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64, or if this is undesirable, the hyoscine, morphine and cactoid combination. To sedate, avenin, scutellaroid, zinc phosphate or the following combination: Gold bromide gr. 1-250; Arsenous bromide, gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. To control vomiting, copper arsenite or arsenoid acid. Among the sedatives which frequently are indicated are bromides, camphor monobromated, croton chloral hydrate. nI hepatci and digestive disoders the following have their indications: Podophylin, juglandoid, leptandroid and chionanthoid ,with saline laxative, preferably those carrying colchicine, with Strchnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. 1-2; or, Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. 1-32; Juglandoid gr. 1-6, before meals with Papain gr. 1; Pepsin gr. 1; Berberine hydrochloride gr. 1-32 Strychnine sulphate gr. 1-128; or, Betain hydrochloride grs. 2; Pepsin gr. 1; Papain gr. 1-2; or, Pancreatin gr. 1-2; Papain gr. 1-2; Diastase gr. 1-2; Bilein gr. 1-32; Strychnine sulphate gr. 1-128; Ginger gr. 1-4; Vegetable charcoal grs. 2 1-2; Solium bcarbonate gr. 1, after meals, the one indicated to be the one selected. The intercurrent

complications, as serious meningitis, epilepsy, peripheral neuritis, loss of memory and nervous tremors to be met as they arise and with indicated remedies. An acute "drunk" may be sobered up quickly by an emetic dose of apomorphine hypodermically, followed by five grain doses of ammonium carbonate will diluted, or two to four grain doses of monobromated camphor, or by teaspoonful doses, every half hour of the following mixture, well diluted: Aromatic spirits of ammonia oz. 1; Camphor water oz. 1. In acute alcoholism the writer has used hot milk, liberally peppered with cayenne, at frequent intervals with good results. This furnishes not only food, but in addition stimulates the stomach and removes the desire for more alcohol, and probably relieves cerebral congestion to some extent.

ALOPECIA.

Arsenic, internally, is the indicated remedy. It may be given as the arsenates of iron, quinine and strychnine, or in specific cases as the Liquor Arsenii Compound (Barclay). The latter consists of 2½ grs. of Arsenoid Acid, with 200 grains each of Strontium and Lithium iodide to the ounce. Pilocarpine stimulates hair growth and may be given either hypodermically or applied locally. In the latter application it is best used with sodium cantharidate and quinine, in solution. The following may be used to advantage locally: Camphor gr. 2-3; Menthol gr. 2-3; Phenol gr. 2-3; Thymol iodide gr. 2-3; with oil tar, cassia and eucalyptus q. s., in a purified vegetable vehicle: or an ointment carrying a distillate from shale tar, with penolic constituents. Frequent scrubbing with a soap carrying the distillate of the shale tar is also effective in some cases. The digestion should be looked after and disorders corrected.

AMBLYOPIA. AMAUROSIS.

If not due to local lesions, look for cause elsewhere. Suspect autotoxemia, the excessive use of tobacco or alcohol, metallic poisoning, syphilis, nephritis, or acidemia. Treatment must be based upon the cause and not the effect. In autotoxemia and acidemia, elimination must be thoroughly stimulated. The laboratory must be called upon frequently in this condition. If there is high urinary acidity, clear out the bowels with an inital dose of calomel and podophyllin, , follow with the sulphocarbolates and to reduce acidity give the following: Sodium sulphocarbolate grs. 2½; Sodium sulphate grs. 5; Sodium bicarbonate grs. 20; Colchicine gr. 1-500; Juglandoid gr. 1-6; Xanthoxyloid gr. 1-6; with Sodium chloride and aromatics q. s. to make one dram. This should be administered in dram dose one hour before and two hours after meals, until the degree of acidity is reduced to from 20 to 40 degrees, as shown by the Harrower Acidimeter. If syphillis is present the following should be pushed: Mercurous iodide gr. 1-12; Stillingoid gr. 1-3; Strychnine arsenate gr. 1-64; Iron arsenate gr. 1-32; Quinine arsenate gr. 1-32; Nuclein solution M5: or, Mercuric iodide gr. 3-64; Arsenous iodide gr. 1-64; Iodoform gr. ½; Phytolaccoid gr. ½, these to be alternated with iodized lime. Where there are alcoholic or tobacco excesses, pilocarpine is indicated In the "rheumatic diatheses" the salicylates, the Sodium and Xanthoxyloid Compond, or the following compounds: Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s.: or, either of the rheumatic mixtures suggested by Candler and consisting of the following: Salicylic acid (natural) gr. 1; Iodized lime gr. 1-3; Colchinine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. ½; Boldine hydrobromide gr. 1-64; Aromatics, q. s.: or, Salicylic acid (natural) gr. 1; Iodized lime gr. 1-3; Stillingoid gr. 1-6; Colchinine gr.

gr. 1-12; Aromatics q. s. Where there is marked debility, or where there has been excessive use of tobacco or alcohol, strychnine arsenate or brucine hydrochloride. To support cardiac action, digipoten. If due to menstrual disorders, aletroid, vibrunoid, caulophylloid and helenoid. Invariably anticipate and look for uremia, as amblyopia is frequently the first indication of this condition. In some specific conditions Liquor Arsenii Comp. (Barclay) is undoubtedly indicated.

AMENORRHEA.

Invariably look for the cause, as this is simply a symptom, nothing else. If due to congestion, clear out the bowel with saline laxative, following with small doses of hyoscyamine or atropine, these by colchinine, with hot douches locally, followed by suppositories made as follows: glycerine and magnesium sulphate in a base of gelatine. For anemia, the arsenates of iron, quinine and strychnine: or, Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32, with Defibrinate blood grs. 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution M5. To relieve constipation small doses of saline laxative in the morning, or aloin, or Waugh's Anticonstipation, consisting of Aloin gr. 1-25; Strychnine sulphate gr. 1-500; Atropine sulphate gr. 1-2500; Capsicum oleoresin gr. 1-500; Emetoid gr. 1-500; Bilein gr. 1-250. Sanguinarine nitrate, gossypoid, caulophylloid and helonoid are indicated as stimulants of the generative functions. To increase blood quality, in pronounced anemia, iron arsenate during the intramenstrual periods, with potassium permanganate gr. 1-64, every three or four hours for from four to six days prior to expected menstruation. The iron cacodylate, hypodermically, should meet the indications in anemic cases. Iron arsenate gr. 1-32; Sodium cantharidate gr. 1-5000; Aloin gr. 1-6, four times a day, for simple atony. For nervous, hysterical conditions, the following, exhibited every four hours in combination: Aletroid gr. 1-6; Senecoid gr. 1-6; Scutellaroid gr. 1-6: or, the Uterine Tonic suggested by Buckley: or, Candler's Uterine Sedative and Nervine, consisting of the following: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. ½. When menstruation is suddenly checked by exposure, acontine is frequently indicated. In frigidity and functional amenorrhea, sanguinarine nitrate is the indicated remedy, but should not be given if a plethoric condition is present. Ergotoid, apiol and gossypoid have their indications in selected cases. The diet should be full, but plain and simple, and readily digested, and digestion should be stimulated. Elimination should be looked after, but only gentleness should be exercised in this connection.

ANAL FISSURE AND PRURITUS.

Usually essential to dilate sphincter and excise fissure. This effects the radical and complete cure. Among the palliatives are a suppository consisting of the following: Distillate of shale tar M5; Papain gr. ½; Hyoscyamine sulphate gr. 1-5000; Suprarenal gland gr. 1-6; Cocoa butter q. s.: or, Camphor, Menthol, Phenol, Thymol iodide, of each gr. 2-3, with oil tar, cassia and eucalyptus q. s. in a purified vegetable oil vehicle to make oz. 1: or, the distillate from shale tar or an ointment made therefrom: or, Thymol iodide grs. 40 in one ounce of a vegetable oil: or, Camphor and Menthol of each grs. 20 in Liquid petrolatum oz. 1: or, a mixture of hydrastine, bismuth subgallate and thujoid with orthoform and glycerin in a base of petrolatum and lanoline. A dusting powder made from the purified sulphocarbolates with boric acid and talcum, or with the addition of astringent is indicated an oint-

ment consisting of tannic acid and white lead, with sodium sulphocarbolate, with a petrolatum base, is frequently effective. If there is infection, the bacterins are indicated, based upon the bacteriologic findings. These usually employed are the Coli-Bacterin or Staphylo-Bacterin, although others may be indicated in certain cases.

ANEMIA (SIMPLE)

Invariably look for the cause. If due to syphilis or tuberculosis, treat the indication of the intercurrent disease. Those agents which will increase vitality and increase blood quality, as well as quantity, meet the indication, and are as follows: Defibrinated blood M 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution M 5; or, the arsenates of iron, quinine and strychnine with nuclein: or, Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32: or, Iron phosphate, Calcium phosphate, Potassium phosphate, Magnesium phosphate, of each gr. ½, with Nuclein solution M 4; or iron iodide, iodized lime, calcium lactophosphate, or the combination last mentioned in strumous cases. When due to malarial poisoning iron ferrocyanide: or, Strychnine arsenate gr. 1-250; Quinine arsenate gr. 1-128; Iron arsenate gr. 1-12; Quinine ferrocyanide gr. 1-6; Capsicum oleoresin gr. 1-64: or, Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hydrobromide gr. 1-3000: or, Strychnine arsenate gr. 1-128; Quinine arsenate gr. 1-64; Iron arsenate gr. 1-64; Nuclein solution M 4. When the patient is neurasthenic the indication is for application of neuro-lecithin. Arsenic is at times preferable to iron and may be used as arsenous acid, or in the form of he Liquor Arsenii Comp. (Barclay). To stimulate the mucous surfaces the addition of a few drops of phosphoric or dilute hydrochloric acid to the saline laxatives is suggested as desirable in the treatment of anemic young women. The bowel should be kept clear and clean. The sulphocarbolates and cultures of the Bacillus Bulgaricus are indicated to overcome fermentation. The diet should be nutritious and of the sort to be readily assimilated. High colonic flushing, with massage acts well in many cases. Graduated exercise should be insisted on. The morning saline is usually indicated.

(To be Continued)

NOTES.

Phosphorus is recomended in the treatment of epilepsy.

Citric acid is of value in gastric catarrh with much mucous.

A saturated aqueous solution of alum is a good application to facial herpes.

A 2 per cent. solution of copper sulphate is a useful application for prickly heat.

Give glucose freely in post-anesthetic intoxication; it resores glycogen to the liver, a substance often depleted by anesthetics.

A 5 per cent. solution of calcium chloride in mint water, and given in tablespoonful doses three times daily, often gives marked relief in chronic urticaria.

Silver nitrate, 1 grain; dilute nitric acid, 15 minims; mucilage of acacia, 4 drachms; cinnamon water to make 3 ounces, is recomended in the treatment of chronic enterocolitis.

If possible, avoid giving an opiate for an abdominal pain until you know its cause. Morphine may mask the symptoms of an acute lesion, e. g., appendicitis, and delay the diagnosis.

MISCELLANEOUS

DIETETIC PREPARATIONS FOR THE SICK.

By J. L. Wolfe, M. D., Cedar Falls, Ia.

In the consideration of the subject of food drink and diet, we have in a former article alluded to the general considerations which are to guide us in the choice of articles of food under the various circumstances which we may be placed. It may be well for us however, here to add some remarks as to the modes of preparing the articles designated, and of adopting them to the desires of those concerned. No one who has as a physician noted the different methods in which different families follow out the same directions, but that will recognize in this very thing many sources of diet errors to which the sick are exposed. For instance, one patient being permitted a little broiled ham for dinner the one family will cut a thin and tender slice carefully broil it by successive turning and dripping until it is done without being raw on the one hand or overcooked on the other, while another will prepare it in such a state as to offend the most delicate stomach. Even a potato properly cooked dry and mealy is a very different thing from a water-soaked one; and so by abundant instances from actual observation we might in cooking account for the reason of disagreement without attributing it to differences in the patients or in the effects of the same food upon different persons. The stomach after all is not half as capricious as some imagine and we can pretty generally by studious attention designate which will agree and what will not if the mode of preparationn is accurately defined and applied as the prescription of the article to be used. For all practical purposes we may so far as food is concerned, divide diseases into three classes.

1. Those states of system in which there is an overdemand and danger of repletion.

2. Those in which there is want of appetite but an evident call for encouraging the desire for food and a plain necessity for support.

In inflammations or active acute disease of any kind, the stomach secretes a very little gastric juice, and food so far from supporting, lies undigested irritating the system and causing exhaustion instead of giving nourishment; and it is a fortunate thing that under such circumstances there is generally a loathing of food.

In the third class of cases it should be our business and art as it were, to coax the stomach into digestion and by nutritious niceties we often do as much in restoring digestion as by less acceptable bitters and tonics.

Is active fevers and inflammation, the great demand of the system is for fluids, pure cold water, weak lemonade, flax seed tea, barley water, and the juice of watermelons or oranges, form a sufficient variety of drinks. Where the tendency is to a low grade of fever or to rapid emaciation and debility, even before the symptoms subside we must convey to the stomach food which is absorbed without any great tax to the digestive organs, as they will not perform as in health. Here milk diet is most appropriate consisting of cow's milk, arrow root, tapioca, corn starch and the like. In some cases where it disagrees even the cream will need to be removed from the milk; and if the bowels are much affected even a large supply of starchy food is objectionable. Not infrequently alcoholic stimulants are indicated in these cases and even tea and coffee are of service. As soon as a step is made toward recovery beef tea may be given to advantage. When there is absence

of appetite and yet call for support as in chronic diseases, this unnatural state of things is usually owing to some serious disease which needs both the care and medicines of a competent physician; but it should be the aim of all to supply the natural stimulus of food.

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"THE MOTHER."

By W. T. Marrs, M. D., Peoria, Ill.

Knowledge of sexual and allied subjects is presented these days from the platform and in literature in a manner unblushing and bizarre. The dissemination of information on these subjects is doubtless a good thing but much of it is almost calculated to cause some of our puritanical forbears to turn over their ashes in their graves. Some of the magazine stories concerning maternity matters are, to the physician, absurd and wholly untrue to life. The technique and construction of a short story may be good from a writing point of view, and it may read well and appear on the surface to be plausible, but it may not bear the acid test of comparison to real life.

I have read in the February Cosmopolitan magazine a story called "The Mother" written by Leroy Scott. The main actors in this story are George and Katherine who get married and go to housekeeping, the same as quite a few other young people have done before. The maternal instinct is strong in Katherine and she longs for a baby. George puts her off on the grounds that their finances will not yet permit this luxury. As they get better established she shall have her baby, he tells her. But as George becomes promoted in business and therefore makes more money, he and his good wife have new social obligations to meet and they must entertain in a fashion befitting their station.

Ever and anon Katherine asks if she can't have her baby now and on some pretext or other George puts her off from month to month and year to year. These people are mature in years and possess their share of the knowledge of the world and how it is run; yet Katherine continues to beg for her baby. The writer, it seems to me, makes a little simpleton out of Katherine. There is implied the idea that all Katherine has to do in order to get a baby is simply to put in the order as they might order a Victrola or a load of coal.

The reader naturally wonders what George and Katherine are doing to prevent conception. As there are no sure, safe and justifiable means of preventing conception, this story sets one guessing. Is it morally right for one to create the impression in a story that folks are practicing methods calculated to defeat nature?

But this story goes on and the folks are about ready to "have their baby." They have never for a moment questioned their ability to bring forth progeny. They haven't a thought of the numerous things that stand in the way of conception, especially when that desideratum is most desired. There may be a tightly adherent os; or again George may have sowed his wild oats before he met Katherine with the result that the vas deferens is hermetically sealed, so that spermataozan can not possibly travel down that thoroughfare. All the young folks think they have to do to obtain a baby is just to "have it."

The plot thicknes. About the time George and Kate are thinking of putting in their order for a baby, something happens. Something just has to happen in a story, otherwise it wouldn't be a story. Katherine gets hurt in an automobile accident and is taken to the hospital, and afterward to her home. As she is convalescing the old and revered family physician drops in

to see her, he is the one who ushered Kate into this world. She discloses to him her overweening desire—a baby. He looks her over a little and asks her a few questions. Then he looks wise and tells her she can't have a baby! The accident queered it all. What could have been broken? Does a little shaking up in an automobile put the reproduction system out of commission? Joy riders are not specially noted as being immune.

This may be "some story" as stories go. As a medical and scientific preachment it has many lame spots. One naturally feels sorry for Kate because she can't "have her baby." The majority of Kates are working overtime in the endeavor to keep from having them.

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CAN TUBERCULOSIS BE CURED?

By J. A. Burnett, M. D.. Hartshorne, Okla.

There are many who think that tuberculosis cannot be cured. Not long ago a man came in to see me who had tuberculosis but did not know it for sure but suspicioned it. He said that if I thought he had tuberculosis that he did not want any treatment, that if he had it he wanted to die as soon as possible.

Pulmonary tuberculosis or any other disease can in most instance be cured if taken in time and the proper treatment given long enough.

In an editorial in the Medical Summary Sept. 1913, the editor says:

"Tuberculosis if taken early enough is a curable disease in a goodly per cent of cases."

He further says:

"Above all else the consumptive should have his case diagnosed early."

In an editorial in the California Eclectic Medicine Journal is the following:

"If we know anything at all about tuberculosis we know that it is more common than—say measles, also that the death rate is not as high. Over 90 per cent of the adult population have had tuberculosis and fully recovered without ever suspecting anything about it!"

Further on he says:

"Anything that will improve the general health will cure tuberculosis.

In an article on "Berberis Aquifolium" by the late Dr. John Fern he says:

"Prof. Webster says he has seen cases of phthisis recover under this agent even when there were extentive cavities and from my own experience I can believe every word of it such as its power to reconstruct."

There are in my opinon many patients scared to death with tuberculosis. When the public learn the value of an early diagnosis and the proper treatment continued as long as needed, tuberculosis will not be so common.

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In the extremities of the stocking, drawer-leg, stockinette or flannel bandage put next to the skin when a plaster cast is to be applied are turned down over the cast and then a few turns of the plaster bandage are made over them near but not at the edge of the cast, a neat and comfortable cuff or margin will be thus provided.

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Two to 3 per cent. of resorcin, in a saturated aqueous solution of boric acid, is a useful instillation in the treatment of chronic conjunctivitis.

Strychnia, in doses of 1-40 to 1-20 grain. shows the pulse rate slightly. Doses of 1-30 and 1-20 grain raise blood pressure. Doses of 1-40 grain do not raise it.

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F. W. VAN KIRK. M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 FEBRUARY, 1914 No.2

"THE EUGENIC LAW."

Just at present Wisconsin is in the limelight because on the first of January, 1914, the new Eugenic law went into effect. The sum and subtance of this law is that before a marriage license will be issued to any male person in the state, said person must undergo a medical examination, by a competent licensed physician, and be given a clean bill of health as far as venereal disease or contagious disease is concerned.

There has been considerable controversy among the different medical societies of the state because the maximum price allowed for such examination is the sum of three dollars and because all general practitioners are not competent to make some of the newer tests for venereal disease as the "Wasserman Test" and because the general practitioner could not have said test made for the sum of three dollars.

The law has been interpreted in different ways. Some seem to think that the "Wasserman Test" should be made in every case, while others have interpreted it that the general practitioner is to make only a thorough examination of the applicant and that the Wasserman Test is not to be made unless there are found evidences that the applicant has or has had syphilis.

Again many people of the state, laymen as well as medical men contend that the law as it stands is unconstitutional—and it has been so interpreted by one of our Judges in Milwaukee—and a test case will come before our Supreme Court within a short time, and then we will really know just where we stand. Medical men know that in order to make this law a fair one that both parties entering into the marriage state should be required to be examined, and then it would be fair for both parties.

There is much food for thought in this new law. While we all will acknowledge that severe measures should be taken to prevent the spread of venereal disease and to protect the future generation, there is still a great deal of doubt as to what is the best way to go about this matter to achieve the best results.

If this new law is found to be unconstitutional it may be the means of bringing this issue fairly before the people of the state, and it may be the means of framing another law which will not be unconstitutional and which will get at this matter in a manner more satisfactory not only to the laymen but to the physicians.

At this time I am not going into the merits or demerits of the law as it stands. After the Supreme Court ren-

ders its decision we may have a little more to tell you about the new Eugenic Law. In the meantime keep your eye on doings in Wisconsin.

SEROBACTERINS OR SENSITIZED BACTERIAL VACCINES.

Bacterin or vaccine therapy, carried out by the use of killed bacteria, has now been successfully applied to the prevention and treatment of many infectious diseases. Clinical experience has proven beyond question that these products produce a degree of immunity which enables the person treated to resist infection and which is of great value therapeutically. The length of time required before the immune condition is present and the local and general reactions which sometimes follow the first and occasionally subsequent doses are, however, factors calling for improvement.

To remedy he first of these defects, experiments were made with mixtures of serum and killed bacteria, with the idea that by this means immediate passive immunity could be had, as well as a more permanent active immunity, but this procedure resulted in failure, as only a slight degree of passive immuniy was secured and no active immunity whatever. Besredka attributed this failure to the excess of serum present in such mixtures, and for the preparation of his "sensitized vaccine" took advantage of the discovery of Ehrlich and Morgenroth that bacteria mixed with a serum containing specific anibodies unite permanently with such antibodies. After maceration in the immune serum for a sufficient time the sensitized bacteria are recovered by centrifugalization. The bacteria, with their antibodies attached, are then washed in the centrifuge with physiological saline solution until all traces of serum are removed. Careful complement fixation and animal tests are employed to make sure that proper sensitized bacteria are recovered by cenally the bacteria are made up into standardized suspensions for adminisration. Since the value of serobacterins depends on thorough sensitization, and the complement fixation test proves the extent to which this has taken place, his test constitutes a vital part of the technic.

Besredka claims that sensitized bacterial vaccines or "serobacterins" possess a great advantage over the bacterial vaccines now in common use, in that their action is far more rapid, and they produce no clinical or opsonic negative phase, and no local or general reactions. His researches have been confirmed by such prominent invesigators as Marie, Remlinger, Dopter, Theobald Smith, Metchnikoff, Gordon and others, all of whom found that sensitization of bacteria confers upon them new properties which render them highly effective as vaccines, free from the defects of the ordinary bacterial vaccine and "possessing an action which is certain, inoffensive, rapid and lasting."

A large number of favorable reports have appeared on the value of serobacterins in the prevention and curative treatment of such diseases as cholera, plague, typhoid fever, dysentery, streptococcic and penumococcic infections, gonorrhea and even tuberculosis and rabies. Sensitized plague vaccine is now official in the French Pharmacopoeia, sensitized tuberculin is coming into very general use in Germany and other European countries, and sensitized rabies vaccine, on account of the rapidity and greater certainty of its action, has been adopted as the official Pasteur treatment.

The underlying principle explaining the action of serobacterins, according to Besredka, is that the bacteria propared by sensitization are rapidly de-

voured by the phagocytes, and this is the cause of the absence of unfavorable reactions following their use. The combining of antibodies and bacteria outside the body disposes of a long-drawn-out preliminary process which, with the bacterial vaccines, must be done by the patient's body cells. In serobacterins, this combination of antibodies with the bacteria being already performed, their action is immediate and free from local and general reactions.

The action of serobacterins may be characterized as follows:

1. Certain—because the bacteria are already prepared for phagocytosis and intra-cellular digestion.

2. Rapid—an effective immunifying response follows he first injection in from 24 to 48 hours.

3. Harmless—Being saturated with antibodies, the serobacterins do not absorb any of those present in the blood of the patient, and consequently cause no opsonic or clinical negative phase. They are free from toxic action.

4. Permanent—Animal experiments prove that the immunity secured from the use of serobacterins or sensitized bacterial vaccines is more permanent than that following the use of bacterial vaccines.

The rapid producion of active immunity marking the action of serobacterins is invaluable in both the treatment of disease and preventive immunization. In treatment of a patient infected with rapidly multiplying pathogenic bacteria, the prompt immunizing response should overcome the infection before it causes serious damage. In preventive immunization, especially in epidemics, the advantage of securing immediate immunity should make the use of serobacterins almost obligatory.

Sensitization is a delicate and complicated procedure which can be successfully carried out only in especially equipped laboratories by experts of tre highest type. The difficulties surrounding the preparation of sensitized vaccines have up to the present time prohibied their general use, and the production of this superior vaccine on a scale that will make its use possible in every-day practice marks an important step in bacterial therapy.

A very complete review of this most interesting subject appears in the Mulford Digest for December, and we suggest that any physician who has not received a copy of the December Digest containing this review should secure one.

PROTECTION FOR PHYSICIANS AND SURGEONS.

The prevention and defense of malpractice suits against reputable members of the profession has received considerable attention during the past fifteen years.

During that time two forms of protection have been offered to physicians and surgeons, one which provides defense through the court of last resort, if necessary; the other in the form of a liability policy. The company offering defense only, claimed that any indemnity paying feature in connection with protection of this nature was unnecessary, and in fact, provided the incentive for bringing suit, in the hope of securing a compromise settlement from the insurance company. On the other hand, insurance companies call attention to the fact that verdicts are often rendered against reputable men in trial courts where the jury has disregarded the law and evidence, but they cannot deny that where such cases are appealed to the higher courts the verdict is invariably either reversed or set aside.

The fact is that reputable practitioners do not always appreciate how much the law on the subject of malpractice

favors the professional man. As a matter of fact, however, before a disgruntled patient can secure a verdict against a physician or surgeon that will be upheld by the higher courts, he must show by the expert testimony of reputable practitioners of the same school as the physician or surgeon attacked that he failed to use an accepted method of treatment, that he was negligent or careless in his administration of that treatment, or that he attempted to perform services he was not qualified to render.

If a verdict is sustained against a physician or surgeon on any or all of these grounds, it is safe to assume that he was guilty of malpractice, and it is a question of public policy as well as ethical practice, whether he has the moral right to shift the responsibility of his carelessness onto the shoulders of some corporation.

For a number of years, the Physicians Defense Company of Fort Wayne, Indiana, which was a pioneer in providing protection in this nature, was the only company which operated on the defense plan exclusively, although during that time there were ten or fifteen insurance companies which offered physicians liability insurance policies. On November 10th, this Company discontinued writing new business, having disposed of their interests to an insurance company, but men who were conversant with the situation and who still believed that a certain percentage of the profession felt that the defense plan was the most practical, organied the American Medical Defense Association under the laws of the State of Illinois as a corporation "not for profit."

The purpose of the Association, as set forth in its charter, is to protect its members from unjust attacks in civil courts in any cause which involves the professional acts of its members, such acts to be devoid of all the quibbles and technicalities so frequently set up by insurance and casualty companies and society defense by "conditions," provisos" and "limitations" contained in the policies or rules governing such defense.

In order to assure the members of confident and conservative management, William A. Montgomery, of Chicago, and William F. Hatch, of Fort Wayne, Indiana, were asked to assume the direction of the affairs of the Association. Dr. Montgomery, who is a graduate physician as well as a practicing attorney, has had nearly fourteen years' experience in this work. Early in the year 1900 he began as General Agent of the Physicians Guarantee Company, the pioneer in this business, and later was made Western manager of the Company. On January 1, 1901, he came to Chicago and for many years was associated with Hon. Kickham Scanlan, the attorney for that Company (now Judge of the Circuit Court of Cook County) in the trial of every case defended by that Company in Cook County and in many other notable cases in other states. When the Physicians Guarantee Company was reorganied as the Physicians Defense Company, Dr. Montgomery continued his work with the new company and became widely known as an authority upon Medical Jurisprudence. He is a graduate of the John Marshall Law School and admitted to practice in several states. His medical training and education, coupled with his legal attainments and long practice and experience in the defense of malpractice suits, makes him eminently fitted for his present position as President and General Manager of the Association.

William F. Hatch, Secretary, has been the Assistant Secretary of the Physicians Defense Company at the Home Office of that Company for several years and his previous experience

of over ten years with such corporations as Armour & Company and the Beatrice Creamery Company, has given him a business experience that will be of great value in his present position.

The experience of stock companies organized for profit has shown that dividends on capital stock, taxes and license fees exacted by the various states, absorbs so much of the income as to make a business of this kind unprofitable, from an investment standpoint. In view of this fact, the mutual plan has been adopted which eliminates the items of expense mentioned, leaving the defense fund free from burdens.

As the Association is solely for the protection of its members at actual costs, the matter of determining this actual cost is of great interest to each member. The membership of the Association are assured that the exact facts regarding this matter will be placed before them annually by a Board of Control, which the By-Laws of the Association provide shall be elected by the members themselves. This Board of Control will act as an auditing committee of all funds of the Association devoted to the defense of its members and will decide each year as to the disposal of the surplus remaining in the defense fund and its decision shall be binding upon the members. Two plans of disposal of the surplus are contemplated: First to create a Reserve Fund for use in emergencies; and, second, to declare a rebate pro rata among the members to reduce the amount of annual dues for an ensuing year. For the first year or two, it is probable that the first plan will be followed.

The Board of Control, as provided for in the By-Laws, consists of five members residing in Chicago, or Cook County, and one for each one hundred members in each different state, elected by the members residing in such state. The report of the Board of Control will be printed and sent to each member of the Association annually, thus giving him accurate information as to the defense fund. The Board of Control so far selected for Cook County consists of the following: Charles M. Robertson, M. D.; Emil Ries, M. D.; John E. Harper, M. D.; R. R. Bosworth, D. D. S.—all of the city of Chicago.

The annual dues of the Association have been placed at Ten Dollars, which is deemed amply sufficient to cover all costs of efficent and successful defense and to leave a margin for a Reserve Fund or rebate, as well.

The experience of the companies operating under the defense plan has shown that an uncompromising defense with the assurance of aggressive fight to the last ditch is a most effective prophylaxis against the filing of suits, and this, beyond question, will be the experience of the Association.

The fact that the majority of insurance companies have been compelled to raise their rates to a point where it is really a burden to the physician to carry a protection of this nature, shows that the plan of handling the defense of malpractice suits on an insurance basis is exceedingly expensive. As a matter of fact, several of the large casualty companies are seriously considering the matter of discontinuing this line of business.

However, the various state societies, in a limited way, have been able to provide a more or less satisfactory defense to their members.

The eventual object of the Association is to nationalize the ethical defense which the various state societies have tried to afford and to make this defense complete, competent and inexpensive, and, to our way of thinking, the plan of the organization assures the accomplishment of this object; thus even though the pioneer company in

this work has discontinued business, the medical profession will still be able to secure protection on a defense basis at considerably less than they have been paying in he past.

The character of the men who have taken membership in the Association so far is evidence that the Association is going to receive the hearty support of reputable practitioners, and a heavy support on the part of the profession will assure financial success. The experience of the men who will be in charge of the defense of suits also assured that their efforts to vindicate the good name of the members will be successful. The competency of this management is well known. A selection of attorneys by the members, which is provided for in the By-Laws, places that important matter where it belongs.

To sum up the whole subject, it places at the disposal of the profession the most efficient defense possible under the circumstances and at actual cost. If there is anything in the plan of the Association that is lacking for complete protection and prevention of malpractice suits, fourteen years of experience has not disclosed what it could be that is missing.

The executive office of the Association is located at room 1305, 127 N. Dearborn St., Chicago, Ill.

ABSTRACT.

THE CALL OF THE CHILD.

The Federal Children's Bureau is more than justifying itself according to Frances Bradley, Georgia, who gives (Journal A. M. A., January 24), an account of the methods used by the bureau at the recent Conservation Exposition at Knoxville, Tenn. As a part of the Child Welfare Exhibit, a children's health conference was installed to determine the prospect of raising future healthy citizens. All parents were invited to bring their children but no scoring was done or prizes given, the natural incentive of parenthood and desire of the welfare of the child only being relied on, and the results justified the method. Husbands were as interested as wives and the parents were shown how they succeeded or failed to do their best for their offspring. The examinations were opened to all classes and conditions and to all ages under fifteen. Bradley gives a number of instances showing how valuable counsel could be given even when it seemed hardly needed as well as when the need was obvious. Faulty nutrition was shown to be the cause of most of the ills of the children brought in and an expert was secured to give practical demonstrations on the care and preparation of milk, the feeding of infants and schoolchildren and the wholesome preparation of the foods commonly used. The bottle-bed country child also gets a taste of everything the mother eats "to keep it from having colic." The conference seemed to establish certain facts which are given in conclusion as follows: "1. The medical profession is alive and quite able to care for the children of the country without resorting to hysterical or spectacular methods. 2. It does not need the financial backing of advertising concerns to point the way to its duty. This work may be kept free of commercial entanglement and on the usual high plane of professsional activities. 3. The medical professon stands ready to give of its knowledge and efforts to the uplift of mankind, and the little child shall not call in vain." Bradley hopes that the work of raising the standard of public health may remain in the hands of the government and of the medical profession to work together in this most important phase of conservation.

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PAIN

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

There is no other clinical condition which makes such demands on the system as the sensation of pain. People will let other things drift for years, but their demand for relief is immediate upon the occurrance of pain. A little study of the subject, however, will show that pain, far from being the enemy of the animal, is the means of their salvation.

If we regard pain as exaggarated feeling, we can begin to see just in what way pain is a friend rather than an enemy. There is no more reason to believe that the nervous system would misbehave any more than any other part of the body, and when any nerve begins to set up a cry of pain, the physician should go cautiously.

Pain means something, and cannot be neglected. If conditions are right in the body we do not have pain, but when things begin to get seriously wrong we get the phenomena called pain. The dictum that pain is the cry of the nerve for pure blood is more fact than fiction.

This does not seem, however, to have penetrated very deep into the medical conscience, judging from our observation on treatment as usually administered. The general use of morphine and allied salts as a sheet-anchor in pain is reprehensible. There may be occasions when it could be excused, but practice along this line is analogous to striking a crying infant on the head with a hammer, rather than find out why a normal infant should cry.

It is doubtful if we can find a normal individual who suffers from pain. Consequently we know that where we have this phenomenon to deal with that something abnormal exists, and it is good practice to ascertain just what is wrong before relieving the pain that is present.

ABDOMINAL PAIN.

So many things may go wrong in the abdomen that only a skilled clinician can differentiate at times. This is well recognized by some of our surgical brethren, who do not try to make a diagnosis, but an exploratory incision. This is just as logical and scientific as giving morphine immediately for every pain that presents itself, where a diagnosis is difficult.

The pains accompanying stomach ulcer, appendicitis, cholelithiasis, renal colic, uterine infection, and peritonitis, are usually well known to the profession, and can be studied in other books devoted to these specialties. We desire to call attention to another source of pain in the abdomen, usually overlooked, as we may judge by the number of people who have had several operations for pain without benefit.

COLONIC ULCER.

This clinical condition is seldom recognized by either the surgeon or physician. It seems altogether too much trouble to study the stools for possible information in this obscure condition.

The patient usually presents himself with a well-located tenderness along the

course of the colon, but more accentuated in one spot. He complains of a vague ache, interspersed with a burning, stinging sensation, especially after a movement of the bowels. At times a slight elevation of temperament may be present some time during the day. The patient feels miserable, usually with a coated tongue and a foul breath.

The diagnosis is difficult, but can be made by putting the patient on a strict carbohydrate diet, and giving mild saline laxatives and enemas daily. It will be noted that the patient complains severely about the enemas, as they make the pain very much worse. The burning is much increased, especially if a soap base is used to clean out the bowels, and it will be noted that the soreness is in the same position each time.

After five days of this preliminary treatment, so that no vestige of a meat diet remains in the bowel, an examination of the stool will show occult blood in large quantities, together with shreds of tissue and mucus. At times a regular muco-colitis is present, with immense quantities of mucus in long strings shed every four or five days. In these cases a general tenderness is usually found along the colon through its entire length.

In this case it can be seen that pain has served to bring to light a serious clinical condition that would probably never have been discovered if attention had not been directed to it by the pain. Many of our most serious cases of anemia have been found associated with this condition, an unsuspected hemorrhage going on for years without the knowledge of either patient or physician.

It is no uncommon thing for patients to present themselves with a diagnosis of tuberculosis of the bowels, and a profuse diarrhea present, which is due to extreme putrefaction in the colon, and which yields promptly to proper hygienic regime in food and the toilet of the bowel.

We have found in the colon the source of many mysterious troubles that plague physicians from time to time. A number of cases of profound anemia have been found to be due to intermittent hemorrhage from the bowels which had escaped notice altogether, or had been diagnosed as piles and some salve prescribed. A number of cases diagnosed as petit mal were found to be due to internal hemorrhage in the colon, as they cleared up as soon as the blood ceased.

Many cases of weak heart action, as the patient called it, blind staggers, were found to be due to the same cause. We try to impress upon the conscientious physician the lesson that he has not done his duty until a complete analysis has been made of the stools after a thorough preparation for the procedure.

PAIN IN NEURALGIA.

Here we have a typical example of a nerve giving a warning to its owner to change his habits of life. It is a timely warning and one that should be heeded. It may seem a smart thing to kill the barking watch dog in order to still its voice, but when your valuables are stolen, or neuritis has set in, you begin to realize that the faithful dog was only doing his duty as well as he knew how, and deserved better treatment from its master.

A nerve will not give warning until something is radicaly wrong, and the wise physician will go on a still hunt for the source of the trouble, rather than paralyze the nerve by giving some dope. We have not found this treatment necessary for many years, yet have no difficulty in relieving the patient promptly.

A filled sinus, gas at the root of a tooth, an uncorrected astigmatism, or in the majority of the cases the production of a specific toxin from the putrefaction

of egg waste in the bowels, will be found as the most likely cause of the great majority of cases that present themselves. All of these cases yield readily to appropriate treatment, and require no dope to relieve the patient.

PAIN IN NEURITIS.

In this condition we have a nerve inflamed from the presence of some neurotoxin circulating in the blood, and exclusive of specific causes its source is always found in the colon.

HEADACHES.

We personally do not believe that a physician should prescribe for this condition, until he has had the pleasure of entertaining a good attack of it himself. A personal experience with hemicrania, due to astigmatism, was sufficient to make one of us devote considerable research to these obscure conditions. Their causes can usually be determined by painstaking laboratory work, and in our experience we have roughly slassified them as follows:

Waste Poisoning from insufficient elimination.

Toxic, from putrefactive material in the bowel.

Chemical, from amino-acid poisoning.

Infective, from bacterial infections.

Pelvic, due to prolapse and swelling of these organs.

Fermentative, due to butyric acid and methane gas.

Refractive, due to uncorrected errors of refraction.

Specific, due to chronic infections such as luetic, malarial, etc.

Carbohydrate starvation, producing acetonuria.

Meningeal infection.

Tumor growths in brain.

Occasionally other variations have been due to phosphorus and calcium starvation. We believe these to be rare; however, they will repay investigation.

WASTE POISONING.

The deficient intake of water, or kidney insufficiency causes a great loss of balance in metabolism. Waste gradually accumulates within the body, until the normal functions are seriously disturbed, and as a protest against this condition we have a headache, usually called a sick headache, owing to the fact that the stomach rebels against more food, and it is accompanied by nausea. Some people have so-called bilious attacks, great quantities of bile being regurgitated, and for several days the ordinary stuffing process must be suspended, while nature eliminates the poisonous products as best she can, and in the majority of these cases she receives very little intelligent help from either patient or physician. In fact, Nature would do the job much better if both personalities could be eliminated long enough to allow for compensation.

TREATMENT.

The patient should be given copious draughts of hot water, containing some alkali like sodium citrate, in quantities of 3,000 c.c. daily. If the stomach is very unstable, the water can be given at intervals by means of an enema, with sugar and sodium bicarbonate. The bowel should be emptied with calomel, followed by a saline, with hot bowel flushings every three hours until the mass is removed from the colon.

We give our patients a hot soaking bath at 106 to 108 degrees for from 15 to 20 minutes, first causing them to drink two glasses of cold water and putting ice cloths on the head. When the time is up we reduce the temperature to 85 degrees for five minutes, and after giving an alcohol rub put them to bed. This is usually followed by complete relief, and the patients are carefully advised on habits of life and a procedure laid out for them to follow. The grave consequences of their former mode of life are pointed out to them. We

have found only the most cheerful co-operation among our patients. They are grateful for the information, and they follow the general outline given with a fair degree of fidelity.

TOXIC HEADACHES.

This headache is irregular and is remarkably severe when it comes. One or both eyes seem badly swollen to the patient ,and are sensitive to both light and pressure. The pain usually runs over one side of the forehead, usually in the area covered by the supra-orbital nerve. This headache is usually accompanied by pains in the testicle, ovaries or breasts.

The pain and soreness are severe. We will usually find a coated, moist tongue, and a peculiar fetid odor on the breath. The perspiration is usually fetid and pungent.

These headaches usually come on suddenly and the patient is usually prostrated, unable to be up. They call for the most drastic elimination by water, alkalies, baths, bowel flushings and a nitrogen-free diet.

This regime will bring prompt relief, and a general laboratory analysis should be made to ascertain the chemical balance, the degree of toxicity of the urine and the amount of secondary anemia, and a proper diet should be laid out for them.

CHEMICAL HEADACHES.

The chemical balance has a profound influence upon the welfare of the individual. It frequently happens in certain individuals that a sudden attack of liver insufficiency may come on, due to a general lack of exercise and indiscretion in eating. If these people continue to eat nitrogen foods, an enormous amount of amino-acids is split off the protein molecule which is not converted into glycogen. These bodies are eliminated through the kidneys ,and by appropriating all the available alkali a starvation results and improper elimination takes place and may result in a severe headaches. This is described as a nervous headache, with a trobbing, bounding pulse, each beat of the heart being easily traced through the brain. The patients are usually irritable, may cry and have been known to simulate an attack of hysteria. Inquiry will show these patients to have been flighty, very irritable, with an uncontrollable evil temper. All these cases are complicated to a greater or less degree by toxic absorption from the bowels and for this reason they are seldom clear-cut in their clinical symptoms. The cause of this trouble is the patients' own fault. They have been high livers, on broths, soups, or gravies, containing amino acids in a concentrated form. Their treatment is identical with the toxic headache, but they require more alkali until a chemical balance is established.

INFECTIVE HEADACHE.

It is probable that the toxins from many of our pathogenic bacteria can cause headache, especially if defective oxidation and defective elimination are present. We are, however, considering those headaches that are due to infections around the nose, naso-pharynx, throat, mastoid and oral cavity.

There is nothing more certain than a headache, if pus is enclosed within some of these sinuses. The openings in some of these numerous cavities are so minute that an infection may readily close the cavity, and a localized abscess results. The source of this trouble is frequently difficult for a specialist to find on inspection. The headache is always accompanied by some tenderness and a sense of fullness in some of these parts. The headache may be experimentally produced by the physician, by injecting fluid into one of these sinuses under pressure and holding it for several minutes. An expert nose and throat man must be consulted in these cases and the walls of the sinus opened so widely that

there will never be any danger of their closing again.

It occasionally happens that the frontal sinus may be closed for several hours by the swelling of one of the turbinated bones of the nose, and where this is the proven case, a cotton swab with cocaine and adrenalin applied to the swollen bone, will give immediate relief. If the offense is repeated the bone must be removed and the opening in the sinus enlarged, and the proper autogenous vaccine given to kill out the infection. The clinical symptoms vary according to the sinus infected and must be closely observed to differentiate properly in each case.

Infections of the tonsils frequently cause a peculiar headache, usually unilateral. Although no local symptoms may be present in the tonsil, removal is the only cure, which applies also to the mastoid disease.

PELVIC HEADACHES.

Certain women with a relaxed pelvic floor complain of a headache on the top of the head, as if a heavy weight was placed upon the spot. This usually comes on after a long walk or some hard lifting they have done.

This condition usually obtains in women who have borne children, and have suffered severely in the pelvic floor.

The treatment would consist in a repair as far aspossible of the physical defect, with instructions on calisthenics. These people are encouraged to walk on their hands and feet several times a day, the buttocks being elevated by the hand and an attempt made to cough. This allows air to enter the vagina and the pelvic contents will drop back into position. If the position is maintained for a few minutes, the pelvis will drain and great comfort will ensue. Of course it is understood that douching may be useful, but our experience is such that we prefer the position posture as a curative measure. A number of our patients have persisted in this course of treatment and have brought about a symptomatic cure by this means. All functions of these individuals must be looked into carefully in order to arrest any bad habit of living, and to place them in the most favorable conditions to get well. There has been a well-defined suspicions in our minds that certain women generate a toxic substance from the pelvic organs during menstruation. This we have never been able to find chemically, but have observed its effects.

We have a married woman now under observation for three years. She measures up to a normal standard by any laboratory method known. Her pelvic organs are normal as far as examination will show, yet she has the most violent headaches during each menstruation, and has a bilateral herpes on the chest and cervical regions. Metabolism is not disturbed by the menstruation, and the phenomena subside promptly when the menstruation ceases. At times the toxemia has been so severe that a bilateral neuritis has ensued. We have never observed anything so severe before, but in a few cases a mild neuritis has been observed during menstruation. Thyroid and mammary extract has given her perfect relief, but the trouble returns promptly if the extracts are omitted during menstruation.

FERMENTIVE HEADACHES.

So-called stomach headaches. These are due to fermentation of carbohydrates or hydrocarbons by various bacteria, yeasts and molds in the stomach. These people are great eaters of fats and sugars. These are eaten in great quantities and at all hours. The stomich is never given any rest while the patient is awake. Some starchy morsel is put into the mouth with a clock-like regularity. These people seldom eat any protein, and therefore, do not get any hydrochloric acid secreted in the stomach and it becomes an excellent place for bacteria, yeasts and moulds, etc

The food environment and suitable conditions of warmth and moisture are present, with the result that by-products are formed in large quantities. We may get alcohol, methane or hydrogen gas, or butyric acid from the fats. The stomach is gradually distended, motion ceases and the bacteria multiply rapidly. This results in a violent headache, which requires a prompt evacuation of the stomach by emetics and the viscus should be washed out with soapsuds, followed by plain sterile water. Some mild antiseptic solution should be given and a radical revision of living insisted upon.

REFRACTIVE HEADACHES.

May be usually recognized by testing the axis of the eye. Muscle trouble is almost always present. The tension of the eye is usually abnormal and a history of headaches, coming on suddenly after using the eye for some exacting work. The patients will usually complain of the eyes blurring or the print running together. They must be refracted and the proper glasses fitted. In many cases they know that their eyes are at fault, but, because of some mistaken notion that they don't look well in glasses, they have neglected themselves.

SPECIFIC HEADACHES.

Certain cases of luetic infection complain seriously of headaches. This usually occurs in the third stage of syphilis, long after it is possible to get a clear history of an early infection and the cause may escape ordinary observation for several years, until some other mysterious symptom shows up.

This headache has all the classical symptoms of hemicrania with this exception that they complain of a dull ache in some portion of the brain which persists for several days after the headache proper has left. A Wassermann or a luetin test offers the only hope of diagnosis, and the earlier it is applied the more satisfactory the results. It will ordinarily yield to modern treatment, unless the brain lesion has reached the advanced gummatous stage.

MALARIAL HEADACHES.

Many cases of Chronic headache, usually involving the entire head, will show a malarial parasite in the blood, and yield readily to quinine, properly administered.

ACETONE HEADACHES.

Some people are so fixed in their habits, or follow so-called food fads, that they are led to avoid carbohydrates until a starvation exists with the production of large quantities of acetone. This results in a stupid appearance, poor memory and a constant headache which may last for weeks. The sufferer is apt to fall asleep if he attempts to read, or sits quietly for some time. A proper correction of the diet is all that is required and is followed by immediate relief.

INFLAMMATORY HEADACHES.

It occasionally happens that a person with a grave meningeal infection will present himself, complaining of a severe headache which has lasted for weeks. The ache is usually localized, and stiffness of muscles is ordinarily present. A culture of the spinal fluid will generally show bacteria, and vaccines can be made and used with fair assurance of success.

These patients generally need a general laboratory examination, and as far as possible they must be put into the most favorable condition to get well. These casese must be regarded as serious, and usually will present many evils of metabolism.

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When operating upon an incarcerated umbilical hernia, especially in an old or enfeebled subject, it may be quite desirable to enlarge the ring by incision before opening the sac. This will facilitate the reduction of the bowel promptly after its exposure.

A SERIES of CASES of PROSTATECTOMY

J. F. PEMBER, M. D. & T. W. NUZUM, M. D. Janesville, Wis.

Senile enlargement of the prostrate gland is so frequent that it is estimated that more than 1 per cent of elderly men suffer from it to some degree, and in a large percentage of such cases to such a degree as to render their lives intolerable and it seems to be more frequent in men of push and energy.

As it is said of tuberculosis that it carries off the fairest and brightest of our race, so may it be said of prostatic hypertrophy that it afflicts the most thrifty and energetic, and I well remember when a boy the great sufferings of some of these aged men from the then named gravel and how they went to a mserable and speedy exitus.

When but a boy practitioner my nearest neighbor and benefactor ,a most noble man of great energy and fortitude, the most prominent and foremost man in the community, suffered from said disease. He spared no effort nor expense in seeking relief; we consulted the most eminent of the time and I was more and more impressed with the helplessness of our profession. How gladly we hailed the new operation of prostatectomy. Even in these aged and many times feeble subjects it was a bow of promise and a ray of hope, and what a blessing it has been to these aged sufferers can best be realized by we who have been in the work for some years.

The development, anatomy, location and function of the prostate are so well known to you all that I need not here repeat, but I want to remind you that the proximal end of the urethra is elevated in all of these cases so that it is no longer the lowest point in the bladder, and that there is residual urine, more or less even where the patient may be able to pass a fair stream, and when the urine becomes infected and amoniacal, soon there is lighted up an inflammatory process and a process of continuous infection becomes operative.

We note this by the loss of flesh, strength and vigor, as well as the dingy complexion, coated tongue, foul breath, loss of appetite, constipatoin and general debility, a picture so familiar to us all that he who runs may read.

We have taken a few similar cases from each series, done by the three usual methods, viz: the inverted Y incision, the small median or Mayo incision, and the supra-pubic method as performed by J. B. Deaver of Philadelphia, and while the number is small the conditions were quite alike and we may be able to draw some helpful conclusions. At least I shall hope that a full discussion of the subject by those more experienced than your humble servant may prove a source of much benefit to all present.

In order to give you some idea of the comparative methods of each operation as held by the masters in surgical art, those of large experience and more especially those who have done the work by each method, I sent out a number of letters asking the following questions:

1—Which of the three methods, namely, the inverted "Y" method, the small medium incision or Mayo method, or the supra-pubic method as practiced by J. B. Deaver of Philadelphia, do you regard with most favor?

1—As to the safety of the patient.

2—As to the length of time required for recovery.

3—As to the comfort of the patient.

4—Urinary control.

5—Freedom from complications.

To my questions I received answers from about a dozen, which I think are well worth your time to consider.

J. B. Murphy writes: As to safety,

the supra-pubic route, in the average cases.

As to the length of time required for recovery, the supra-pubic.

As to the comfort of the patient during his confinement in bed, the perineal.

When able to be out of bed, the supra-pubic, properly protected with gutta percha urinary control padding.

As to the final urinary control, the supra-pubic method.

As to freedom from complications, the supra-pubic method.

As to full recognition of the complications that occur in the bladder, with enlargements of the prostate or in cases of supposed to be enlargement of the prostate, as diverticula, papilomata, initial carcinoma, etc., by all odds supra-pubic.

The above covers the general applications, but as to the exceptions above, I would say that the small fibrous prostate can be removed probably better from below: a (through the long lateral incision easiest; b (through the inverted "Y" incision).

When the capsule of the prostate is reached it should be punctured with forceps and the finger inserted and an enucleation made rather than dissection.

The pathological condition preceeding the operation rather than the operation itself accounts for the mortality.

There is greater danger of injuring the rectum by the perineal than by the supra-pubic operation. I would say that about four-fifths of my cases are now performed by the supra-pubic route.

Dr. A. J. Ochner writes: I believe that the medium incision for prostatectomy is the best in regard to all of the features mentioned in your inquiries.

Dr. A. D. Bevan's letter reads: In answer to your questions will say I prefer the supra-public method; if I do the perineal, however, I do the small medium incision. Recovery is usually in about two to four weeks. The comfort of the patient, I believe, is much more certain to be secured by the perineal route. It also gives urinary control and the great freedom from complications.

Dr. Edward Martin of Philadelphia writes: In regard to your questions, the perineal cut is as a rule safer, prompter in recovery, more comfortable to the patient and freer from complication. Complete normal urinary control is perhaps a trifle more assured than by the supra-pubic operation. A convenient cut for the operation is a curved perineal incision in the front of the anus.

Dr. E. W. Andrews' letter reads:

1—Left perineal (lateral)—Supra-pubic about 60 per cent of cases. Perineal slightly safer in skilled hands.

2—About equal.

3—No great difference.

4—Much easier in perineal operation.

5—Supra-public avoids more late complications. Fistula injury of rectum.

Dr. J. B. Deaver of Philadelphia writes:

The supra-pubic is the method I prefer. It is not attended by any sequals, complications, etc., if properly performed, or want of urinary control.

If this does not suffice, write me again.

Dr. Hugh Cabot of Boston writes the following:

1—As to safety, I think the perineal route, by whatever method, carries a distinctly lower mortality in the present state of our knowledge.

2—The recovery after perineal operation is more prompt if one excludes those cases of persistent sinus, which are pretty common.

3—The patient is more comfortable after the perineal operation.

4—Urinary control is certain after the supra-public operation, quite uncertain after the perineal. The advantage

here is wholly with the former operation.

5—The supra-pubic operation is practically free from complications. With the perineal route many complications, chiefly fistula, lack of urinary control, and failure to cure the obstruction are common:

Dr. M. N. Percy:

In reply to your questions concerning Prostatectomy, will say that I favor the medium perineal incision, and if one is careful to make the enucleation from within the bladder, I think this method gives the best results as to all the five questions.

Dr. Scudder of Boston:

I think that there is no choice in the supra-pubic or perineal approach so far as the safety of the patient is concerned under ordinary circumstances.

2—The time required for recovery, if a healing of the fistula is the criterion of recovery, is a little shorter by the perineal method than by the supra-pubic, but not much.

3—Both methods are attended by discomfort. A properly conducted supra-pubic fistula need be no more uncomfortable than a perineal fistula.

4—There is less likelihood of a disturbanne of urinary control by perineal operation.

Dr. G. E. Brewer of New York:

In reply to your note, permit me to say that I use the supra-pubic method where there is a large median lobe, in very old people where a quick operation is necessary, and where there is already a supra-pubic opening. I use the perineal method (Young's) in cases where the hypertrophy is limited to the two lateral lobes, and when the condition of the patient permits of more deliberate work.

Although I believe the supra-pubic is safer in bad risks, my mortality has been considerably less in the perineal operation. The length of time for recovery in my hands is shorter in the perineal: also the comfort of the patient. Regarding urinary control. I think I have one patient following each method with delayed closure of sinus. The perineal case still leaked a drop or two at the end of two years. I know of no supra-public fistula which did not eventually heal.

Dr. Parker Syms:

As to the supra-pubic method, I have always been opposed to that method of performing prostatectomy. The only excuse for its performance, to my mind, lies in the fact that it has been found easier of accomplishment than it is in the perineal method. Of course, good results obtained by some men form also a proper excuse. However, I believe the risks to the patient are approximately twice as great by the supra-pubic method.

Of course there is no comparison between the two methods when it comes to the question of the length of time of time required for recovery.

The same may be said as regards the comfort of the patient.

As regards the urinary control, I can speak from experience. I should think incontinuance would result as frequently after the supra-pubic as after perineal operations.

Of course the perineal method, if properly performed, is much more free from complications than is the supra-pubic.

As to the perineal prostatectomy, I have not employed the inverted "Y" method, nor any other modifications of the Celsian incision, exposure being made without dissection. I have not wounded the rectum at operation.

One patient developed a recto-peritoneal fistula some time after operation).

After exposing the sheath of the prostate I do not approach the gland through the prostate urethra but through the sheath on either side, as Young does.

I do not know what could be called the method of Mayo. I have understood the Mayos were now principally using the supra-pubic method. I believe for some time past they used the method which was proposed by Dr. Gouley twenty-five years ago and which was put into practice and brought into prominence by Dr. William Goodfellow in 1891 or 1892. This method consisted in opening the membranous and prostate lobes by incising or lacerating the prostate urethra on either side. When I began my work in '98 I thought the method was original with me. Though Goodfellow had published his work, it was in a magazine which had gone out of existence. As far as the safety of the patient goes, the mortality risk is about as high as that of the supra-pubic method.

2—As to the length of time required for recovery, in perineal prostatectomy it is much shorter. It is my rule to have patients out of bed within forty-eight hours. Favorable cases are practically well within two or three weeks.

3—As to the comfort of the patient, the patient is usually free from discomfort when the drainage tube is taken out. I seldom leave the tube in longer than forty-eight hours.

4—As to urinary control, see remarks under head of supra-pubic method.

5—As to freedom from complications, aside from the patient's general condition there are a few complications to follow perineal prostatectomy if properly performed. Epididymitis is only one of importance and this of course is not usually a serious one. I take liberty of sending you two reprints on the subject, thinking they may be of some use to you as far as they set forth my views.

Thus you will see that opinions vary, but you will readily see that all who have practiced both methods at all extensively are agreed upon the advantage of the supra-pubic method in many and vital points, viz: (a) Urinary control, (b) freedom from complications, (c) rapidity of making the operation, and if properly done the danger from hemorrhage is no greater and I think even less.

The operation as of late is as follows, which I have seen and practiced, and strikes me as ideal, viz: Make a large supra-pubic incision and push the peritoneum upward; introduce two strong sutures of silk to act as guy ropes to steady the bladder; the latter are not at all essential; make an incision into the bladder and place a gauze pad in its fundus and hold the wound open with a Jackson speculum, introduced into the bladder through the upper angle of the wound and let the speculum press against the gauze pad which was placed in the bladder; with two gloved fingers placed in the rectum bring the bladder and prostate well up into view when you can explore every part of the inside of the bladder and discover pathological conditions with an accuracy which would not be possible by the perineal route.

I saw Dr. Murphy operating on a case in which he found a diverticulum full of pus which only communicated with the bladder by a very small opening and could not have been discovered by the perineal route and the patient would not have been benefited.

So I believe are stones and tumors and malignant growths frequently overlooked when the operation is done from below Neither is the cystoscope a never failing aid, as I saw a case in Vienna operated upon by Prof. Zuckerkandle, none having a greater reputation, mistake a bladder tumor for a stone, and your humble servant met with the same error, as they did also at the Mayo clinic, on the same case.

Now with the finger of the right hand in the proxinal opening in the urethra break through the mucosa on the anterior part and eucleate the anterior

lobe, following around laterally on each side until you have loosened the entire gland, when you can raise up the prostate and divide the urethra close to the under surface of the gland. Frequently this will not be necessary. The sphincter lies around the gland and has not been injured and the mucosa and veins have been little injured; and if there should be too free hemorrhage, fill the space from which the prostate has been encleated with formodine gauze, and bring it out through the tube or by the tube which is placed in the supra-pubic opening for the drainage.

This can be tied with a very fine cat gut, as mentioned above ,when deemed necessary or desirable. Now place a suture through the upper end of the cut in the bladder and fasten to the muscle on each side and tie. This stitch prevents the bladder from dropping down. Now you can close the bladder entirely, in which case you should drain the space ritzus and keep a catheter in the bladder for two weeks with almost constant irrigation for the first forty-eight hours, or you can close it down to a drainage tube which comes out above the pubes, which personally I prefer, as most of these cases are septic and will not heal by primary union, and I find the retention catheter quite intolerable to many patients. I also believe these patients are benefited by some weeks of drainage.

The after care I have found quite simple; some diluted mineral acid to prevent the formation of concretions on the raw surface, some urinary antiseptic with abundance of water, irrigating the bladder twice daily by introducing a soft rubber catheter a short distance into the urethra, say three or four inches, and letting a gentle stream of some antiseptic solution, as boric acid or permangnate of potassium, flow through the bladder and through the tube above the pubis. The latter procedure gives no inconvenience and washes all septic material out from the deepest recesses of the wound. After the tube is removed, which is usually three to ten days, we continue to irrigate twice daily until we have a clean bladder once more, and use cotton and sterile dressings to soak up what urine escapes from the supra-pubic wound.

In our small experience the fistula have closed from two to six weeks and each case has had a satisfactory recovery.

In the first series are seven performed by the old "Y" method.

1. C. L. (3)—56 years old, Oct. 6, 1902. Removed the prostate by the inverted "Y" incision. He had suffered long from septic bladder and kidneys and was drained by the supra-pubic cystotomy until his general health was much improved. Recovered good urinary function. Sexual power lost.

2. N. F. (84), 65. Retired farmer. Had suffered for some years from prostatic obstruction. Removed the prostate through the "Y" incision. It was small and frozen in. Made a rapid and complete recovery and died four years later from cancer of the bladder. On autopsy both kidneys were found to be seriously diseased.

3. O. H. V. (109), Scan,; farmer; age 70; prostatic obstruction; bladder not septic; removed by inverted "Y" method and made a fine recovery. Sexual power lost.

4. (101, 72 years. American widower. Retired farmer. Had suffered for some years from prostatic obstruction which required relief by catheterization at frequent interals, which finally became continuous. Removed the prostate by the inverted "Y" incision, during which the rectum was injured, which soon healed and caused no serious inconvenience.

5. J. F. Removed an exceedingly large prostate, but the wound did not heal until the urethra was thoroughly dilated and sinuses laid open, after

which he made a fine recovery and remained well for seven years, when he died from carcinoma of the bladder.

6. C. V. (262), age 65. Removed a hard, grisselly prostate by morcellation. Suffered from orchitis in L. testicle, but made an ideal recovery.

7. D. M. (345), 85. Removed a large cystic fibroid prostate by the inverted "Y" incision and packed and drained. Made a fine recovery.

The Small Medium Incision. ....

No. 587. 1. S. S., age 78. Widower. Frozen in prostate. Made a good recovery and left the hospital in good condition, but soon began to complain of pain and inability to empty the bladder, which was dilated. Resumed his work but died one year later.

No. 599. 2. M. V. age 75. Removed a large and adherent prostate. Had some difficulty in retaining his urine for more than a year.

No. 600. 3. M. C. Very septic bladder and kidneys. Had used the catheter for some weeks and his condition was extreme. Was prepared for five weeks by irrigating his bladder three times daily with boracic acid solution and given diuretics urinary antiseptics and milk. Died nine months later from defective kidneys.

No. 601. 4. J. C. Insane. Recovery fine and speedy. Catherized once before operation.

No. 610. 5. S. H. E. age 67 Acute retention and never catherized. Healed by first intention and returned home in two weeks.

No. 615. 6. G. W. N., age 78. Small hard frozen in prostate removed by morcellation. Obstruction had been coming on for one year and bladder was septic. Condition of patient very bad and had great difficulty and much pain on using the catheter. Died one year later from carcinoma of the bladder and hemorrhage into the same.

No 635. 7. C. W., age 80. Had suffered from retention, pain and hemorrhage for one year. Made a rapid recovery but continued to complain of pain and had some blood in urine at times. Later a cancer mass could be felt in the base of the bladder, which increased in size and filled the bladder.

No. 645. 8. O. S., age 77. Large frozen in prostate. Made a good recovery, but died six months later from an intercurrent malady.

No. 646. 9. W. G., age 54 Had used the catheter for some time and had a very septic bladder and pyonephrosis. Condition very bad; kidney function failed; urine suppressed but passed a large quantity of thick pus; wound became septic and gangrenous and he died in twelve days. Should never have been operated.

No. 660. 10. B. C., age 54. Diabetes and retention. Made a fine recovery. No retention of the bladder.

No. 688. 11. A. S. M. age 65. Had suffered from prostatic obstruction for more than one year, carrying from one to two pints of residual arine. Bladder was infected one year ago by use of catheter and urine contained much pus since. Blood pressure 210% Spec. Gravity of urine very low, 1003 to 1008. Frozen in prostate. Removed by morcellation. Had been prepared for some weeks by washing out the bladder through a catheter and giving urinary antiseptics. Never did well and died in three months from sepsis caused by abscesses. These were caused by the use of normal salts infusion.

12. M. W., age 85. Died in twelve days. County case. Did well for a time but died from lack of care.

13. G. S. G., age 55.Suffered from phlebitis. Had some difficuly in retaining his water for more than one year. Had suffered from retention for some time, and left kidney much dilated.

No. 685. 14. H. S., age 68. Had suffered from obstruction for seven years, badly for four years. Bladder and kidneys were septic; prostate very

large. Is in good health but has some difficulty in retaining his urine.

Of the fourteen cases done by the Mayo method, two died in hospital, one from pyonephrosis and suppression of the urine. He was extremely septic, was sufferin from cytitis and pyonephrosis, with high blood pressure, and was emaciated and in a very septic condition. He should not have been operated upon at that time but should have had a suprapubic puncture and worn a catheter for some weeks, until his condition was greatly improved and his kidney function restored. This procedure entails no danger, can be done in five minutes under local anaesthesia and usually gives immediate relief. On the other hand, I have catherized some of these cases two or three times daily and irrigated their bladders for weeks, with conditions growing daily worse, when upon puncturing the bladder and using the same medication and diet, improvement sat in in the course of a few days; appetite improved; urine cleared and specific gravity came up and vigor returned, so that in three or four weeks the condition was so remarkably improved that the prostate could be removed with comparative safety.

One patient 85 years old and a county case died in twelve days from lack of care. Had he been in a hospital and received good attention he would have recovered.

Of the fourteen cases in this series six were carc. of the bladder and did not involve the prostate. One died in eight months from extensive involement of the bladder and surroundnig organs, though he was able to pass his urine spontaneously. In cases where there is hemorrhage and when no stone is present, I have fear of cancer. One died in nine months, two in one year and one in three months; this case from septis following the use of normal salts solution.

SUPRA-PUBIC METHOD OF DEAVER.

No. 753. O. R., 65. Widower. Had suffered for four years from prostatic obstruction at which time his urine was drawn continuously. Left kidney greatly dilated and much pus in the urine, of which there is a large quantity passed. Sp. g'vt. 1014. B. P. 200. Coated tongue, very thin and much emaciated. Removed by the Deavers method. Bleeding very profuse and tied in gauze to control same. Had drained by puncture wound and catherized for two weeks previously. Closed in three weeks with good control and patient greatly improved in health.

No. 783. W. E. W., age 65. Had suffered from retention at times for four years, at others emptied the bladder. Saw blood in urine at times, but no pain when urine passed freely.

No. 140. Made a suprapubic opening and removed by Deavers method. Found a tumor as large as a hen's egg arising from the bladder close to the urethral opening. by a very small pedicle, which tumor was bleeding from several points. Removed a very large prostate and tied in formadine gauze to control hemorrhage, which was quite profuse. Made a speedy recovery, retaining the urine, and fistula closed in three weeks.

Pat Cullen, age 75, No. 351. Suffering from paralysis agitans. Has suffered from prostatic obstruction, with occasional retention, for fourteen years. Obstruction became continuous but urine was not septic. Made complete recovery. Had complete urinary control, and fistula closed in about six weeks.

No. 863. C. T., age 67. Widower. Had suffered from prostatic obstruction for four years and had used the catheter for two months. Carried two quarts of residual urine which became very septic. Kidneys dilated, painful and infected. Sp. gv't fell 1005 to 1001 and blood pressure high. Became mark-

edly emaciated. Passed tube into the bladder above the pubes and introduced a small catheter, which remained for three weeks, during which time his condition became more satisfactory. Cut out the fistula tract and removed the prostate by the supra-pubic route. Opened the free peritoneal cavity accidentally and removed a piece of omentum which protruded and sutured the same. Used supra-pubic drain. Patient lost considerable blood and the kidneys did not functuate well for a few days, but the patient made a fine recovery and had full control of the urine, with fistula closed in about six weeks.

Where the bladder has been greatly distended for a long time and suddenly emptied, without doubt you have all noted the violent cystitis which follows its sudden evacuation, and even if the greatest care is used in relieving it by drawing a part at a time, much trouble follows. I think these patients are more safely and satisfactorily relieved by a puncture and the introduction of a small catheter and allowing the same to dribble slowly and contiuously away into proper recepticle.

Of the four done by the latter method, youngest 65, oldest 75, and average age was 68. In each case the recovery was without accident or complication, bladder control was complete, no pain on urination nor difficulty in voiding urine. Fistule closed in from three to six weeks and general health was apparently restored for one of their years.

SHOULD THE CAPSULE BE REMOVED.

I have come to believe that the capsule of the prostate, the capsula formed by compressing the exterior of the gland, like fibrous tissue elsewhere is low vitality and sloughs, thus causing a more or less protracted septic condition which I have often noticed at the end of ten days or two weeks.

You have probably noted how in septic wounds in any part of the body the tendons and fascia will slough while the muscular tissue will remain intact. In our first case done by the Deaver method I was careful to leave as much the capsule with the gland and no late out the gland, and I noted the usual late fever and septic condition. In our next case I took as great care to remove the capsula with the gland and no late septic condition followed. Since that I have understood to remove all of the capsula and each time with the same gratifying results.

DANGER SIGNALS.

I want here to point out some of the danger signals which we have learned at the hard school of experience, trusting that you may profit thereby and escape some unpleasant experiences.

PYO-NEPHROSIS.

1. Where the bladder is distended and the catheter has been used more or less, there is soon developed a septic cystitis. The over distention not only overcomes the powers of resistance of the bladder to a marked degree, but destroys the function of the valves at the orfices of the urethra and forms the bladder, urethra and pleves of the kidneys into one cavity filled with purulent fluid, hence the rapid destruction of the kidneys and failure of their function we so often note. I have watched it where the specific gravity would fall in the course of a few weeks, from 10-20 to 1000, with a corresponding failure in general health, be followed by rapid improvement after the bladder was punctured and continuous drainage established.

2. Continuous low specific gravity is a danger signal which should be carefully noted. It indicates a grave destuction of kidney tissue and an inability on the part of the kidneys to properly elminate solids, hence when a little extra work is thrown upon them they cease entirely to functionate.

3. A high bood pressure is a danger signal usually met with in these patients and means arteriosclerosis, or defective

kidneys, or more commonly both. When extremely high, say 190 to 270., as in one patient with which we met, it is a symptom of much gravity and may deter you from taking the chances of an operation unless these conditions can be improved.

4. Repeated hemorrhage with much pain and no stone present I have come to regard as strong evidence of malignancy.

Our youngest patient was 55 and oldest 85, and average 78 years.

CONCLUSIONS.

1. Our deaths only occurred in thase done by the medium incision.

Complications have been more frequent and recoveries less satisfactory in those done by the median incision. The reason for this is apparent, as one working by the sense of touch and in a deep wound can never be sure that every part of the gland is removed, nor can he be sure of the condition of the bladder.

3. The urethra as well as the sphincter muscle suffers more when done by the first two methods, especially the second.

4. The after treatment is more painful and the recovery of the patient less satisfactory by the second method.

5. The danger of wounding the rectum is much greater by the first two methods.

6. The supra-pubic operation is quickly and easily done.

7. You have full knowledge of the bladder, viz: stone, tumor, cancer, ulcer, diverticulum, ect., and with one or two fingers in the rectum, and the wound well retracted, you can have full control of your work and see what you are doing and have done.

8. You can be sure of the removal of every part of the gland as well as all other pathology of the bladder.

9. Hemorrhage is more severe but can be controlled by the method mentioned above.

10. In our experience there has been less sepsis; in fact, with the exception of the case where the capsula was left, no septic condition, and the after care attended with less pain a more rapid and satisfactory recovery to both patient and physician.

11. The per cent of cases which have developed cancer sooner or later have been about the usual 25 per cent, and some may have contained cancer cells which were removed sufficiently early to produce a cure. On the other hand, some who have not yet developed cancer may do so in the future.

I heard J. B. Deaver say that he had employed the perenial method for several years but for some time had been using the supra-pubic route and that the results were so much better by the latter method that they were not to be compared.

I noted when spending a week at the Mayo clinics last June that Judd was doing the Deaver operation, and also heard him say they had adopted this method because of the many unsatisfactory results following the perineal operation.

Ochsner still uses the perineal route, but makes his incision as formerly done with a large lithotomy knife and cutting backward and to the left, so he has ample space through which to work, and I think his results are quite uniform.

COMPLICATIONS.

Hemorrhage is not easily controlled in any of these cases as they usually suffer from schlerotic arteries and the bleeding is profuse and long contined.

In the inverted "Y" and median methods the wound can be effectively packed with gauze soaked in 25 per cent of suprarenal solution and the hemorrhage will be slight; but in the supra-pubic method no such means of controlling hemorrhage is available unless you pass a fine cat gut suture around the wound in the bladder and then pack the wound

and tie the packing in, which controls the hemorrhage very well.

2. Orchitis has been met with frequently in the first and second methods of operation. Where a sound or catheter is used this is extremely apt to occur and does occur without the use of either. It is a serious complication where the patient is feeble and septic, as so many of these patients are, and may turn the scale against them.

3. Phlebitis has occurred in a few of our cases but only in those done by the median incision.

4. The loss of sexual power from operations done by the first two methods is quite universal notwithstanding Mayo's statement that they still retain as much as they had before the operation, which he further states is very little. By the supra-pubic method I have more hopes that this function will be retained at least in some measure, though the time is too short to be sure of this.

5. Suppression of urine is very likely to happen in cases of pyonephrosis and when the specific gravity is extremely low these cases should be tapped suprapubically and drained until their kidney function is restored when they may be operated on with comparative safety. In the first two methods bladder control may be very soon viz: two weeks as in one of our cases, or may be tardy, say a year or more, or may never be complete, and the fistula has been very irregular as to the time of closing. By the third or supra-pubic method bladder control has been complete from the beginning and the fistulae have closed in from two to six weeks.

6. Painful urination and difficulty in emptying the bladder have been rather frequent in those done by the median incision, not so often in those done by the inverted "Y" incision and entirely absent in those done by the suprapubic method.

7. Frequency of urination, that is, several times during the night, has been the rule in those done by the first two methods, but has not been a source of trouble in those done by the third method.

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LOCAL ANESTHETICS.

A. H. Miller, Providence, R. I. (Journal A. M. A., January 17), calls attention to the lack of exact statements of the dosage of the various substitutes for cocain now in use as local anesthetics. These are used because of their lesser toxicity, but while the dosage of cocain is indicated exactly in the United States Pharmacopeia, the proper dose of its substitutes is generally unindicated and impossible to learn from medical literature. The dosage of these drugs is given in the literature furnished by the manufacturers in strength of solution, leaving one to infer that any amount of the solution of that strength can be safely employed. The dose is calcuated for the local effect only and the general effect of the drug is not considered. To illustrate the point, he refers to a series of cases reported to the Providence Society of Anesthetists, Feb. 28, 1913, of 113 minor surgical or genito-urinary operations in which alypin, one of the safest cocain substitutes was used. One death occurred and in two other cases serious symptoms occurred. The alypin was used in the strength of solution recommended and the amount not definitely measured. In the death, about 2 drams of a 10 per cent solution of alypin were introduced into the urethra and bladder. There was nothing in the literature of this anesthetic to indicate that the amount used was an overdose. In the United States Pharmacopei the dose of cocain is given as ½ grain and the dose of cocain substitute should be stated as definitely. If this is done further fatalities may be avoided.

TONSILLOTOMY REPORT of 200 CASES

M. P. ANDREWS, M. D.
Beloit, Wisconsin

In the review of a series of tonsillectomies one is at a loss to find an introduction into the theme. The wide range of indications, the great variation of symptoms, co-relative disorders and results of treatment at the different ages of life, give us a many sided proposition from which it is difficult to choose a gateway of approach.

At first we must divide our cases into two classes, depending upon the age—children, under which we will include all ages up to sixteen, and adults. Of these, 75 per cent will come under the first division. These we will first consider. The largest number of children requiring attention are between the ages of four and ten, and almost all have a history of having had one or more of the epidemic diseases of childhood. The youngest child operated was a little under two years of age, which scarlet fever had left in such a condition that life was a constant struggle for breath through the mouth and the nose was totally obstructed.

The indications for operation come principally under four headings—Respiratory difficulties, Ear complications, Local tonsil disease and miscellaneous disorders of the body such as Laryngeal and bronchial trouble, Glandular enlargements, Nervous irritability and Rheumatic troubles.

The subject being already too broad a one for a paper it was my intention not to touch upon the subject of adenoids. However, there is one point regarding the relationship between tonsils and adenoids and the indication for operation, that has been impressed upon me. That children having adenoids which require attention invariably have diseased tonsils, and although the throat my look innocent, one is never disappointed in locating trouble therein. While attention to adenoids invariably fails to bring the results sought and in every case of my own that I have allowed the tonsils to remain I have regretted it afterwards, and in the last year I have done no such thing as an adenoid operation without taking the tonsils.

The relation between tonsils and engorged turbinates is one that I believe is not given proper consideration. A number of cases, in which the turbinates remained constantly swollen, in which there was no obstruction from adenoids, but in which there were diseased tonsils, have impressed this point upon me. One may expect the most swollen boggy turbinates to improve after removal of the septic focus in the tonsil.

The worst trouble I have had ras been the child with the diseased tonsils and adenoids and a badly deviated septum, and I may say this is about the only child who doesn't quit the mouth breathing after thorough work on the throat. I have not secured good breathing results in these cases except in children old enough to submit to a sub-mucous resection under local anaesthesia. A sub-mucous resection is not a difficult job on a child under a general anaesthetic. I have chosen to have them wait until older to have it done.

The conditions demanding tonsillectomy, respiratory troubles make up 60 per cent; ear trouble a large share of the remaining 40 per cent. Throat trouble itself seldom is com plained of by smaller children, and the ear ache and enlarger cervical glands are many times the only signs of active tonsil infection.

The adult patients present a much different aspect in regard to the tonsils' relationship to other parts. The direct effect on respiratory function is lessened. Here tonsillectomy is seldom if ever done to enhance nasal breathing

unless it be to remove foci of infection which keep the turbinates intumescent. eighty per cent of tonsil operations on adults were for the relief of the purely local troubles, chronic infections, submerged tonsils with buried refuse, acting as a foreign body, Quinsy, etc. Next to local conditions, Ear troubles ranked second. Then here and there, a case with follicular pharyngitis, in which we invariably found buried foreign substance in or around the tonsils. A small percentage demand attention because of throat cough, cervical glandular enlargements, impaired function of throat muscles effecting speech and causing throat ache, rheumatic conditions and functional neuroses that seemed to originate in tonsil irritation.

The methods of operation employed was dissection of pillars followed by the cold snare. The anaesthetic employed was sometimes Ether, sometimes Chlroform and many times the old A. C. E. mixture. Chloroform makes the easiest, A. C. E. next and Ether the hardest operation for the operator. Have felt safer with the Ether but have left the choice to the anaesthetist except in a few cases, where certain things seemed to serve as reason to make a selection. In adults the anaesthetic was in a majority of cases "a local," whereby we get a bloodless field, and can take plenty of time for a clean stripping of the tonsil from its bed without losing in many cases over a tablespoonful of blood. This method I have used, even at the height of an attack of Quinsy.

The Time of Operation—Relative to acute condition, have waited until the acute infection has subsided except in Peritonsilar abscess or Quinsy and acute violent ear infection due to lack of function of eustachion tube.

I operated one case in the midst of hay fever and I will never do so again, if I can help it. The secretions completely filled the mouth and throat, so that the whole operation was done under water, and although the results were good in the case, I have waited in similar cases until after frost.

The dangers of operation have appeared to be chiefly from the anaesthetic and hemorrhage. From the former, have had three cases stop respiration, with pulse beats continuous; these were all while using the A. C. E. mixture. As to hemorrhage, have had but three cases that I had to go and see after the operation—one anaemic child and two adult men. All stopped at once by using a tonsil clamp for five minutes, paded with gauze saturated with perchloride of iron.

Bad After Effects—In one case in whose family all the other children had atrophic rhinitis, a little girl after tonsil and edenoid operation rapidly developed the same. In one little boy, who had previously had adenoids removed, and a tonsilloctomy, the child developed a nasal twang to his speech similar to a chold with a cleft palate. The child came to me for deafness and I removed the remaining tonsil stumps; his hearing was restored but his speech made worse. Another child with similar faulty speech has been referred for tonsil and adenoid operation. I removed the tonsils and left the adenoids to obstruct this nasal twang as much as possible. In another case a girl of eleven, who came on account of being a mouth breather. After establishing nasal breathing she became so annoyed at the little crust and dust formation just within the nostrils that she developed a nervous sniffing that has kept her and all the other members of the family in hot water ever since.

Imperfect Anatomical Results, following tonsil operations, is a subject which is given much discussion at present in the argument for and against the Sluder method. The cases in which I have failed to get a perfect anatomical result have been those in which the fault has always been mine and not in the method pursued. A small extremity overlooked.

The uvula caught in the snare. The posterior pillar incompletely stripped off, or injured in work upon the adenoids. In three of my cases the uvula has been partly destroyed; in two, a posterior pillar, torn. In two adult cases which were operated under general anaesthetic, a lower pole of one tonsil presented itself and was removed subsequently by local anaesthetic. In two cases, past fifty, cicatricial contraction tightened up the throat. One case got better spontaneously and the other was much improved by clipping the bands adherent to the base of the tongue.

The question of effect on the singing voice is one much debated. I believe that tonsillectomy if done in a manner which would have a perfect anatomical result, namely, whole, free pillars, with the whole tonsil cleanly removed, should not injure but improve the voice. Some half dozen cases that I have operated each testify to me that they sing easier and better than ever.

Middle ear abscess may develop after any throat operation. I have two cases in which acute Otitis meodia has developed, each making an uneventful recovery. On the other hand, ears that have been running for months have, in several cases, cleared up quickly after operation. The cervical glands in several cases became actually inflamed, but regained normal in a short time.

A type of auto-intoxication usually sets in in the cases where swallowed blood has not been promptly cleaned from the alimentary tract.

The operation has been done in six cases of chronic mastoiditis, together with the Heath, or meato-mastoid operation. On two cases simple mastoid operations had been previously performed. In all these cases results were good. The best results obtained were in ear cases, four of which I will review:

Boy, Age 14—Had been deaf two years; could not hear loud conversation; had a tonsillotomy, after which he grew worse. Removed adenoids and tonsil stumps under local anaesthesia; ten days later he could hear a wihsper.

Girl, 7—Deaf for a year. After operation about a couple of weeks received a letter telling me girl could hear perfectly.

Girl, 7—Deaf three years; two years previous had had a tonsil operation which I can say left the cleanest, best looking throat I have ever seen following tonsillotomy. She had enlarged cervical glands and periodic attacks of fever and ear ache and parents had to shout to make her hear. I removed the shells of tonsils about one-eighth of an inch in thickness, which was practically all that had been left. The operation was on Saturday. The following Wednesday the girl's mother told me she could hear a whisper.

Case—Nurse, formerly of Chicago, about thirty; periodic deafness and ringing in ears. Had had adenoid tissue and tonsil operation while in training in Chicago. Ears grew worse; no visible tonsil tissue. On palpating through mouth could feel a round module size of hazelnut, high up under plica triangularis. Palate muscles very rigid and adherent to same. Operated removing upper poles of tonsils which had become completely submerged. Result—complete relief to ear condition. Twenty cases have come under my care with histories of one to three operations all incomplete. The ultimate result under complete tonsillectomy has always been good.

Quinsy and other throat troubles form a parallel to the ear cases. Removal including capsule of tonsil has done the work after conservative clipping has failed. Might cite results of operation on cases of cought, enlarger cervical glands, croup, neuralgias, headaches, rheumatism and eye conditions, but will give only one case of special interest.

Case, Girl, 8—Most severe epileptic. Had passed many nights in one seizure

after another. Her life had often been despaired of. She was operated, not for this trouble, but for respiratory and throat conditions. Her father told me recently that they thought shortly after the operation that she was going to have a seizure, but it passed off, and since that time, in several months, the child has not had a single attack.

Each physician in practice travels to some extent in a path of his own. His own trials and difficulties, with his experiences, form for him his guide book for future activities. From what work I have done along the lines discussed a few conclusions seem to be self evident to me. Among them are:

First—A tonsil, if removed at all, should be removed entirely, with its capsule, and with nothing else removed or injured.

Second—Thhe younger the patient the quicker the convalescence, the less liability to hemorrhage, the quicker and easier the operation.

Third—The safest anaesthetic is Ether.

Fourth—The most difficult to work with is Ether.

Fifth—General anasthetic is best for children.

Sixth—Local anaesthetic for adults.

Seventh—Tonsils interfere with nasal breathing function as much as adenoids.

Eighth—A tonsil completely removed encapsule will not regenerate.

Ninth—A piece of capsule left will regenerate tonsil tissue the same as periosteum will regenerate new bone.

Tenth—In every case of mastoid trouble eustacheon tube function must be established to secure results—why not? It was the original cause of trouble.

Eleventh—The best way to avoid hemorrhage is: First, to do a clean enucleation; second, do it quickly and get the patient waked up to get the muscular contraction of the palate muscles so essential in closing the blood vessels

Twelfth—After a clean operation the throat left alone heals as quickly as the one being eternally gargled and fussed with. If, after a weak healing is slow, one painting of silver nitrate usually is enough to set things right.

Thirteenth—That a small, unsuspicious looking tonsil is often a bad one when connected with ear troubles, threat troubles, Follicular Pharyngitis or enlarged cervical glands.

Fourteenth—That a diseased tonsil is there for no purpose other than to endanger life and happiness. If it can be made sound and comfortable, well and good; if not, let it be a martyr in its death as it has been in its life, to the cause of its native land.

The April Recorder

There is a very well assorted list of articles for April which will appeal to practically every physician—the kind of reading matter which is of real practical benefit. You will not care to miss one of them. A partial list is given here.

"Eugenics" by Dr. E. T. Fish, Milwaukee, Wis.

"Radium—Its Mode of Action and Method of Administration," Dr. F. F. Cassiday, Portland, Ore

"Hydrotherapy," Dr. M. G. Spawn, Beloit, Wis.

"A Few Points on So Called Itching Piles," Dr. W. T. Marrs, Peoria, Ill.

"A One Man Business," Dr. Frank P. Davis, Enid, Okla., and many others.

MISCELLANEOUS

TREATMENT OF PNEUMONIA.

By Frank F. Casseday, Ph. B., M. D., Portland, Oregon.

I believe the rank and file of the medical profession today welcome truth from every souce. They need it in their battle with disease and death.

Not long ago there was a paper in the New York Medical Journal upon the treatment of pneumonia with small doses of phosphorus. The writer claimed excellent results from its use. Many physicians will administer phosphorus to all their pneumonia cases. Some of them will recover, but in many cases no good will result from the use of the phosphorus. Why? Simply this: If phosphorus is indicated it will cure or assist in the cure ;if not indicated it will not only do no good, but will do positive harm.

The writer of the paper alluded to announces this use of phosphorus in doses of from 1-500 to 1-1000 of a grain for pneumonia, bronchitis, and tuberculosis as a new remedy.

Homeopathic physicians have used phosphorus in this way for over one hundred years for bronchitis, pneumonia and tuberculosis.

The writer of the paper mentioned treats phosphorus as a specific. If he prescribes phosphorus as a specific he is doomed to bitter disappointment, but if he prescribes phosphorus according to its indications as the homeopathic physician prescribes he will find it an excellent remedy if indicated.

The search for specifics is futile. There is absolutely no such a thing as a specific medicine for any disease. Even cinchona bark and its derivatives are not specifics for malaria in its manifold forms. There are many remedies which will cure malaria in its various forms more promptly and thoroughly than cinchona; however, I may have something to say about malaria in another paper.

Phosphorus is indicated when the patient exhibits something of a typhoid condition, and the tongue presents a dry appearance, with a dark-brown coating upon it. It is also well adapted to cases of catarrhal pneumonia.

But even in true croupous pneumonia, when the sharp pleuritis pains of bryonia are not present, when the attack has not been caused by exposure to dry, cold winds, and when the patient is of a tall, spare build, phosphorus is usually more effacacious than bryonia. The general symptoms calling for phosphorus are: Tall, slender people, with fair skin, sanguine temperament, sensitive disposition, and lively perceptions. One great indication for phosphorus is a sensation of weakness and emptiness in the abdomen; this aggravates all other symptoms. Especially useful in period of red hepatization, with brick-dust expectoration, with or without hemorrhages.

When is bryonia indicated for pneumonia?

Bryonia is useful, not in the beginning of the attack, but after the synocal form has been reduced by aconite or some other remedy. The sovereign remedy for all inflammations that have advanced to the stage of serious effusion, if accompanied with sharp, stitching pains, greatly aggravated by motion, relieved by rest, and worse at night. Suitable for people with a choleric temperament, bilious tendency, dark hair and complexion, with firm, fleshy fibre.

When is aconite indicated in pneumonia?

Aconite is not always indicated in pneumonia, and should never be given as a routine remedy. Carrol Dunham says that aconite may be useful (if indicated) in pneumonia and other inflammations and may do heroic work.

He considers the time to administer it to be during the stage of arterial excitement, prior to that stage which is characterized by local deposit; if promptly and judiciously used, it may cut short the disease. The special symptoms calling for the use of aconite are: Great anguish of mind and body, restlessness and disquiet that cannot be allayed; high fever precided by a chill, with burning heat and dryness of the skin, full and bounding pulse, and a deep redness of the face; labored respiration, dull pressure and weight on the chest, or stitches in the chest during a deep inspiration and during motion; dry, hacking cough, with some tenacious, blood-streaked expectoration; headache; intense thirt; scanty and high-colored urine; the recumbent posture on the back; and physical signs pertaining to the first stages of the disease.

The grand sphere for aconite is found in all diseases which emanate or have their starting point from the cerebro-spinal nervous system, and are of a congestive, inflammatory, or rheumatic character.

Great fear and anxiety of mind are important indications for the use of aconite. The aconite patient is fearful of many things—fear goes through the entire pathogenesis of aconite. Great thirst all the time—aconite patient cannot get enough cold water. Pains insupportable at night. All pains and other symptoms worse from warmth and better in the open air. Especially adapted to diseases within its scope brought on by dry, cold west winds.

When is veratrum viride indicated?

Veratrum viride is indicated in pneumonia as a supplementary remedy to aconite. It is indicated when there is high temperature, very rapid, hard and strong or intermitting pulse; flushed face; labored respiration; dry and hacking cough with abundant and bloody expectoration; red streak through the center of the tongue; and sinking faint feeling in the pit of the stomach. It lowers the pulse and the temperature with great rapidity when indicated, and although the respirations may not be so markedly affected, the dyspnoea is never distressing to the patient, even in bilateral cases of pneumonia. It is especially indicated in the first stage. Warm sweating is an important indication.

Tartar emetic is indicated in the stage of resolution, where there is oppression of chest and difficult breathing. The pulmonary inflammation is on the decline, and the vesicles as well as the smaller bronchial tubes seem to be full of a viscid secretion, not tinged with blood, which the patient finds the greatest difficulty in raising. Tartar emetic is therefore especially suited to the form of broncho-pneumonia so common in infancy and old age. The dyspnoea is accompanied with wheezing and rattling of mucus in the air passages. The expectoration may be completely suppressed, with fits of suffocation and a spasmodic cough, or if bronchial catarrh is present and the hepatization persists, there may be a considerable quantity expectorated, but only after much effort. It is particularly valuable for pneumonia following whooping cough, emphysema, or delirium tremens; and where gastric catarrh complicates. The general symptoms in addition to those mentioned are: A livid or pallid countenance; a frequent pulse; a lowered temperature; a loose cough with great anxiety; and a cool, moist skin. A wonderful remedy when indicated. It has brought many an infant from the jaws of death. But if given intoo strong doses it will paralyze the pneumogastric and kill the child. The preparation known to homeopathic physicians as dilutions of from the 6th to the 12th decimal dilutions, with alcohol, or triturations with sugar of milk, or as much diluted as proportion of 1 part to ten or twenty thousand, will work marvels.

Sometimes must be given in water, dilution or trituration—ten drops or ten grains in a glass of water and dram doses given sometimes at ten-minute intervals. Many times I have sat at a bedside for hours through the dark hours of the night battling with capillary bronchitis (or broncho-pneumonia, as you my choose to term it) in small children, and come out victor where physicians with old methods had failed. Again I say, do not get the false idea in your mind that even tartar emetic will cure every case of broncho-pneumonia. Select your remedy and stay with it. Cut down your doses. This is the age of little things, and the modern physicists are showing and counting atoms, and electrons—presumably the smallest thing in the world. The ultra-microscope shows us particles of gold in a hydrosal of gold solution far beyond the ken of the best microscope-whirling and flying about, as Becquerel says, like gnats in the dome of a cathedral. The physicists have demonstrated the marvelous activity of matter in a condition of divisibility far beyond the ken of the most powerful microscope. The human body in its laboratory deals with matter in an extremtly divided state. Imitate the body methods, and lessen your doses. You will be surprised and gratified with the results.

Arsenic is not often required for pneumonia, but if the condition assumes a graver aspect it may be demanded. It is indicated where there is extreme prostration, restlessness, pallor of the face, coolness of the surface, periodical exacerbations, considerable dyspnoea and an irregular pulse.

Other remedies which may de demanded are: Sulphur, mercurius, hepar sulph., iodine, bromine, lycopodium, chelidonium, ammonium carb., kali carb., sanguinaria and rhus tox.

Bellandonna, hyosceamus and opium are the chief remedies for the delirium which frequently complicates pneumonia. They are to be considered merely as intercurrent remedies, when delirium is due to arterial or venous congestion. When the upper portion of the lung is involved ,and the delirium traceable to circulatory disturbance, and not to blood change, and especially, if the head symptoms, like throbbing carotids, great flushing, belladonna may be given at once, and with better effect than aconite.

Hyosceamus is especially valuable in pneumonia, with delirium not so violent in form as belladonna. There is less congestion, but more nervous excitement, with talkativeness and hallucination under hyosceamus.

Opium is useful in pneumonia of drunkards and of the aged, but especially in children where there is great cerebral depression and threatened dissolution. The patient does not complain of pain; the respiration is labored; slow, stertorous, or even entirely suspended; the face rapidly becomes cyanotic; the eyes are immovable; the lids half open; there is coldness of the surface; an irregular or almost interceptible pulse, and stupor. But give the opium in the 3x to 6x dilution in water —never give the tincture. Or make a dilution of opium, hyosceamus, or belladonna as follows: Reduce the tincture to a dilution of one part to one thousand of water, or alcohol. Of that dilution put ten drops in half a glass of water and give teaspoonful doses at intervals of from ten minutes to half an hour, stopping entirely when delirium ceases and condition improves. A powerful dose of either of these three drugs may kill your patient. The shall dose gives you a chance to save a life. It is worth a trial.

The best dose: Taking a green drug tincture or powdered drug as the starting point, all of the drugs enumerated above do their most efficient work in doses in proportion as follows: 1 to 5,000, 1 to 10,000, or 1 to 20,000.

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The Wisconsin
Medical Recorder

F. W. VAN KIRK, M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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Reports and items of interest are gladly received.

VOL. 17 MARCH, 1914 No. 3

IS EDUCATION A LEGITIMATE INVESTMENT.

During the past week the A. M. A. Journal has made an attack on one of the Chicago medical schools that deserves consideration. A detective employed by the association applied for admission with insufficient preliminary credits. He was admitted provisionally, turned over to a cramming school to make up deficiencies, and assured that he would be aided in every way practicable to pass the state requirements for matriculation.

The charge against the college, reduced to actualities, is that it accepts as students all persons who can satisfy the legal requirements of the state as regards entrance to medical colleges, and aids in meeting technical requirements when the applicant possesses the mental qualifications to be a successful medical student.

When the Edes jetties had made a navigable stream of one of the passes of the Mississippi the government accepted the work as completed according to contract, although a dredge was still kept in operation. This was to remove certain banks of silt that persisted in forming, that did not interfere with the free passage of vessels as the work contemplated, but was necessary to maintain a certain uniform depth required by ordinance. It might have been within the power of casuists to refuse acceptance of the work, on the ground of this imperfection; but the government recognized that the true object had been really accomplished.

The cases are strictly parallel. The primary object of the laws regulating medical education is to furnish the people with competent practitians of medicine, and one means is to discourage and prevent the entrance of students who have not the education or the qualifications to fulfill the course of study successfully.

The diploma of an approved high school is accepted as evidence of such qualifications. Is it absolute? Are there no graduates of any high school who are really incapable? Every man who has sense enough or knowledge enough to make him a judge, knows that such a claim is the sheerest nonsense. Boys scrape through any and every school of every sort with very little real knowledge adhering.

Suppose a man presents himself as an applicant for matriculation without a diploma, but showing full evidence of such intelligence and general education as qualifies him to comprehend his teaching and make a safe practician—but needing a little dredging to meet the technical requirements.

Here is where the two classes of insti-

tutions separate. In the state endowed college that does not care whether it has students or not, takes pride in the difficulty of entrance, and brags about the number of candidates it refuses, advantage is taken of every technicality to deny applicants. The private school, that is, one owned by men who have invested their money in the nefarious business of medical education, takes the man if he can be made to meet technicalities, provided he shows himself really qualified. Which is right?

Fortunately we have a perfectly good means of judging, in the reports of the absolutely independent state medical examining boards. From these we quote the results of the assailed institution's educational work:

"Bennett Medical college came under its present management and ownership four years ago. The first class to be formed under its auspices will not graduate until the present year, but the results of its work may be judged by the record made by the last two years' graduates."

Of the class of 1912, the only failures made were by seven men who failed before the state board of Illinois. All these succeeded in passing in other states.

Of the class of 1913, not one has failed to pass before any state board in the United States.

As to their ultimate success as practicians, we have this to say, that if any graduate of Bennett of the last three years wants a profitable location, all he has to do is to apply to the college where there is a register of many such places waiting for incumbents, which the faculty has been unable to fill, all available men being satisfactorily located.

We hold no brief for Bennett. We are not advancing Bennett. We are simply supplying o deficiency in the A. M. A. record, by presenting the really essential points of the matter. Officialism, with its punctilio and red tape, always tries to substitute the shadow for the substance, to leave the purpose of law for the technic. And it is this very tendency that forms the strongest argument against the proposed extinction of private enterprises in education, and its restriction to official and subsidized schools.

The only point that interests or concerns the public, is whether Bennett is supplying reliable practicians. There is not a suggestion that this detective had not intelligence enough to make an acceptable medical student; the objection is as to the technical points of his educational qualifications. But this suffices these people as ground for an attack on the school. W. F. Waugh, M. D.

Fuchsin, 5 parts; eucalyptus oil, 10 parts; anhydrous wool fat, 100 parts, is a well recommended application to chronic leg ulcers. If it irritates after awhile, reduce the strength of the fuchsin and eucalyptus. Use basic fuchsin.

Mercury bichloride, administered in average doses to a nursing mother, often controls gastro-intestinal troubles of the infant.

TREATMENT OF PNEUMONIA.

(Continued from Page 79)

These can be purchased in any reliable homeopathic pharmacy, made in dilutions, triturations, and trituration tablets on the decimal scale. Phosphorus is best used in a trituration or tablet in third, sixth or twelfth trituration, and given in doses of two to four tablets or four-grain powders.

Generally speaking, earthy and metallic drugs are best given in powder or tablet form; vegetable drugs are best given in fluid form.

418 Dekun Building.

THE DOCTOR'S LIBRARY

THERAPEUTICS OF THE GASTRO INTESTINAL TRACT. By Dr. Carl Wegele, Edited y Maurice H. Gross, M. D., and I. W. Held, M. D. 52 Text Illustrations and colorded plate. pp. 329. Cloth. New York. Rebman Co. 1914.

This is a specially conscientious and thorough treatise upon the therapy of stomach and intestinal diseases comprising in short systematic arrangement many important facts which are scattered in specialized works that are too exhaustive for the busy practitioner. It is the most useful book for the general practitioner that we have seen on this subject. It covers the ground quite fully and will meet the demand of the man who desires to get at the facts of the subject without being compelled to wade through pages of useless descripive matter. The men responsible for this book had a real message and have delivered it in the fewest possible words, rather than to attempt to build a massive volume by padding. It is a good work, and the mechanical work is up to the high standard of the Rebman Co.

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NARCOTIC DRUG DISEASES AND ALLIED AILMENTS. Pathology, Pathogeneses and Treatment. By Geo. E. Petty, M. D.. pp. 516. Cloth, Philadelphia, F. A. Davis Co. 1913. $5.00.

Dr. Petty considers Narcotic Addiction as a disease the management and treatment of which belong to the field of internal medication. He believes the successful treatment of these diseases depends upon elimination, and this method with all its auxiliaries is presented in detail. The work will appeal to the general practitioner since much space is given to the treatment of acute ailments occurring in narcotic and alcoholic habitues; the management of infants born of drug-using mothers, and the treatment of delirum tremens, and "sobering-up" the victims of acute alcoholism.

It is the most complete work upon this subject that we have seen, covering as it does, the whole range of diseases caused by narcotics of all kinds.

The author has seen fit to repeat in some instances rather than to resort to cross-reference, which he believes will make the work more valuable as a work of reference. This departure from established custom may have its merits in a work of this kind, and it is at least entitled to a fair trial. Many busy men will prefer to have all pertaining to one subject to appear under that head, than to be compelled to refer to other chapters for information on certain points.

Every physician needs a work on this subject and we know of none that will meet their need better than this work of Dr. Pettey's.

♣ ♣ ♣

COPROSTASIS: Its Cause, Prevention and Treatment. By Sir James Sawyer Birmingham, Eng. Cornish Bros. 1914. Cloth, 75 Cents.

Habitual constitpation is a subject on which we can never have too much light. Our own Juettner has said: "The treatment of constipation is the biggest and most important problem of clinical medicine, in spite of all the finesse of diagnostic resources and therapeutic auxiliaries." This book is made up of six chapter's from the author's large work, "Practical Medicine," which we reviewed in this numberi. The work is timely and shows great erudition and close attention to details in the study of this condition. The book is worth while, but we advise our readers to pay the slight difference in price and get the larger book, which contains all this one does, and much more.

ABSTRACTS

ALCOHOLISM.

B. L. Spitzig, Cleveland (Journal A. M. A., January 17), offers a physico-chemical theory of alcoholism. He has observed that many tipplers begin at an age when boyish habits and tastes yield to those of a man. At maturity the demand for carbohydrates is materiall lessened and the appetite for alcohol replaces it in the tippler. There is sometimes a positive aversion to sugar. "The chemical relation of carbohydrates to alcohol is insignificant.. Dextrose is convertible to carbon dioxid and ethyl alcohol. The combination of carbon, hydrogen and oxygen makes for increased nutrition whether it be derived from alcohol or indirectly from sugars and starches. The human organism when deprived of sufficient sugar seems of necessity to demand an increased supply of alcohol. Conversely, when the body is satiated with alcohol it has little need for carbohydrates." Based on this theory his treatment for chronic alcoholism consists in gradually withdrawing alcohol and replacing it in the diet with sugar. When there is a strong distaste of this he uses lactose, a dram every two hours, given in powder for the psychic effect. The gastric and nervous disturbances are appropriately treated and, after self-confidence is gained, all medication ceases and sugar is gradually reduced. With care, glycosuria can usually be avoided.

SYPHILIS.

E. B. Krumbhaar and C. M. Mongomery, Philadelphia (Journal A. M. A., January 24), found 3 per cent of a thousand new consecutive cases in the outpatient department of the Pennsylvania Hospital syphillic, which they consider probably less than half of the actual proportion that had contracted the disease. Trey give an analysis of 108 cases tested by the Wassermann reaction and conclude that their experience will be equalled elsewhere. As regards the proportions encountered in the general medical dispensary, the manifestations of the disease in such cases are often obscure and misleading, and they form a group quite distinct from the type ordinarily found in the dispensaries for genito-urinary, surgical or nervous diseases where distinct symtom-complexes or localizing phenomena are commonly encountered. Students should be instructed as to these typical forms of syphilis and be impressed with the need of being constantly on the lookiut for them. Dispensaries should have ,as nearly as possible, a definite routine treatment for these cases, salvarism having a prominent place and every available means including the co-operation of the social service depaprtment, utilized to insure the carrying out of proper treatment.

THE GENERAL HOSPITAL.

F. F. Stevens ,Boston (Journal A. M. A., January 24), gives from the point of view of an architect the essentials of the ward and operating units of the general hospital. He describes the plans of several European hospitals which he has recently visited and also a number of American institutions recently planned and comments on them. The essentials can be classed under the heads of "comfort to patients and accessibility to service." In addition to the usually recognized essentials he mentions the therapeutic effect of color and the absence of noise from clicking latches, etc. Under accessibility he adds to the usual recommendations that of a special room for placing cut flowers in at night where they can be rearranged in the morning, and wash basins for the doctors and attendants in the corridors adjoining the wards and attention to the width of doors and metal protection of corners that are liable to be bumped.

CONTAGIOUS DISEASE HOSPITALS.

L. A. Lammoreaux, Minneapolis (Journal A. M. A., January 24), advocates an approach to the skyscrapter architecture for contagious disease hospitals and describes the one beginning to be constructed in Minneapolis, which is to be eight stories high and which will have the advantages of economy of upkeep and of not requiring a large and extensive site. He points out also some conveniences of administration afforded by this type of construction of a city hospital.

TREATMENT OF TABES AND PARESIS.

W. H. Hough, Washington, D. C. (Journal A. M. A., January 17), after remarking upon the importance of early diagnosis of nervous syphilis and the difficulties which it presents, says that authorities are now well agreed that it is best met by the mercury-salvarsan treatment as with syhilis in general. In the later manifestations, however, such as paresis and tabes, which have been shown to be active syphilitic conditions, treatment has not been so generally successful. Salvarsan seems to have a greater predilection for most of the other tissues of the body than it has for nerve-tissue, which may explain some of the non-success. It has been shown that the blood-serum of recently treated or cured syphilitics has a marked trophic action on the specific spirochete and the following technic has been devised by Swift and Ellis for bringing an effective medical agent into immediate contact with the diseased process without incurring the danger of direct injection of salvarsan into the subarrachnoid space. "A dose (generally the maximum) of salvarsan or neosalvarsan is given intravenously in the usual manner. At the end of an hour from 50 to 60 c.c of the patient's blood are drawn by means of venous puncture, clear serum is separated, diluted to 40 per cent, with normale salt solution, heated to 56 C. (132.8 F.) for half an hour, kept cool until the following day, then warmed to body temperature and injected into the subarachnoid space by means of lumbar puncture after the withdrawal of about 15 c.c. of spinal fluid, the amount of diluted serum injected being 30 c. c. (After the first few injections, if well tolerated, I usually inject 40 c.c. of a 50 per cent serum.) It must be injected slowly without much pressure. After the injection the patient is kept in bed for about twenty-four hours with head lowered." The number of treatments varies with the case, but the general rule is to give eight or ten treatments, one every second week, and then discontinue them for a while, repeating, if necessary, and using as indices the Wassermann test, with the blood and spinal fluid and the cell and protein estimations of the latter. Thus far the treatment has been tried but by few. Hough gives a brief summary of the cases in which he has himself tried it in tabes. Others have obtained about the same results in this disease. In paresis improvement has been noted by many in the treatment, especially by Cotton, Myerson and Asper. The protein here is more difficult than with tabes and early treatment is important. His own experience includes six cases, of which four are reported, one at some length. In all four there was pronounced improvements in the four reactions, which is more than he has observed in other methods. If we are able to arrest the progress in paresis and tabes by this method, it is most marked advance that has yet been made in the treatment of these hitherto incurable conditions. The general opinion of those who have tried the method is that it is the most promising one for tabes and paresis that has yet been devised. The article is illustrated by charts.

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HYDROTHERAPY

M. G. SPAWN, M. D.
Beloit, Wis.

A glance over the history of medicine shows that water is an orthodox remedy and that it was discussed as far back as Hippocrates, who insisted that cold stimulates and that warm relaxes, and who applied water in the treating of disease.

Aesculapius is maintained in history to have been an advocate of water as a remedy.

In 1697 there was a great propaganda made for hydrotherapy by Foyer, a learned English physician, and in 1743 Professor Froelick, physician to the Austrian emperor, won a prize for the best treatise on cold water in fever.

Germany has paid much attention to the development of this subject both in the past and in the present. History says that the founder of homeopathy, Hahnemann, wrote describing the methods of using water and said among other trite things of the system: "If there be a universally useful remedy, water must be one." He also said that which agrees with present day authorities that "the degree of temperature of each bath and the movement in it must be adapted to the improvement in strength; the weakest body may thus reach the strongest bath, if the exact prescription of the doctor be followed with punctual obedience." He then went on to censure the doctors on account of their carelessness as to temperature, length of time, etc., and inexactness in prescribing the baths.

To Prof. Wilhelm Winternitz, who graces the chair of hydrotherapy in Vienna, medical science owes nearly all it has learned about the scientific use of water in disease, and in my paper I shall use of his words and teaching freely, also the methods and principles as taught in the book of Simon Baruch, M. D., professor of Hydrotherapy in Columbia University, New York City.

Hydrotherapy indicates, as the word would suggest, any method of applying water in disease, whether it be solid or fluid, internally or externally. In this paper I shall treat the subject most largely in its uses externally in the form of water.

In studying hydrotherapy we shall consider briefly—(1st), the anatomy and physiology of the skin, (2d) some of the physical properties of water, and (3d) methods of applying in the treatment of disease.

As we know the epidermis is the first layer and this covers and protects the cutis-vera which lies beneath with all of its delicate nerve ends, glands, follicles, muscles and blood supply.

The anatomical structure of the skin, consisting mostly of a mesh of blood vessels interwoven with and held by contractile tissues, would indicate that the circulation of the skin blood depends upon the functional capacity of the elastic tissue.

Woods Hutchinson has coined the word (Skin-Heart), as expressive of the propulsive action of the cutaneous vessels, and says that he believes that the

minute cutaneous vessels are capable of rythmic contraction. Baruch says that no theory which regards the heart as the sole motion force of the circulation can explain the results obtained by hydrotherapy.

If in addition to its other important functions, we have a right to claim for the skin, which contains nearly 30 per cent of the entire blood of the body, the power of independent contraction in its muscular walls, we have a factor in the circulation which might produce wonderful results, in fact, we might expect this great Skin-Heart to be capable of great effects both in health and in disease.

Winternitz observes that we have in the fever case already a distinctive condition of the blood channels due to paralysis of the vessel walls, and insists that the heart's action is improved by the restoration of resistance in the peripheral circulation.

But let us admit that the normal condition of the muscles in the walls of the blood vessels is not one of rest but one of constant rythmic activitiy and that the restoring of the active contractibility in the vast mesh of vessels in the skin by contact of cold water and by friction is the essential element in the improvement of the circulation, and the whole skin is affected by a bath, does it not seem highly probable that the stimulation of this great diffuse Skin-Heart may be an important factor in improving the entire circulation?

The first shock of cold stimulates the whole mesh to contract forcibly and drives on the stagnant blood.

This blood when thrown into the right side of the heart provides an active dilitation with an abundance of blood. The lungs do their part in purifying and return it to the left side of the heart, from which it is driven to the kidneys, this accounting for the marked increase of urinary secretion after the treatment.

But the action does not end here. If we suppose the contraction has been a rythmic one then the vessels have dilated in readiness for this increase of purer blood. At the moment the vessels have received it they again promptly contract and drive it into the great veins, and we seem to have a new force added to the circulation.

We know that the skin excretes water and exhales carbonic acid, also eliminates urea and some other salts which make it a secretory organ. We know also that the skin is a great regulator. If, then, we recognize the importance of the skin as a sense organ and as a secreting and excreting organ and also as a heat regulator, we can see how these functions of the skin may be utilized in the treatment of disease by hydrotherapy.

When the body is exposed to temperature much below its own, the peripheral vessels of the skin contract.

When a very cold or a very hot bath is entered a deep inspiration is initiated, which is interrupted by spasmodic efforts. If the bath is continued the respiratory movements become regular.

The greatest irritation of the respiratory center is produced by cold applications especially upon the chest and abdomen.

During a hydropathic treatment the whole machinery of the organism receives an impetus which endures a longer or shorter period in proportion to temperature, duration of the treatment, and the technique.

The eye of the typhoid will brighten and the apathetic countenance disappear after a cold friction bath, and the muttering delirium will often give way to quiet sleep.

The average temperature of the nude human skin is 90° The difference between the skin and water temperature being the chief element in determining the reaction of the patient, it is evident that a water temperature of 90° would be nearly neutral, while water above or below 90° would become a thermic ex-

citant according to the reaction of the individual.

Baruch formulates this hydrotherapeutic law. The difference in intensity of effect is in proportion to the difference between the temperature of the water and that of the skin.

He also says that cold baths have lost their popularity because they were administered without friction, and he says that he trains his nurses never to give any cold water treatment without friction.

Ablution is the simplest and most universally applicable hydriatic application, not only in diseased conditions, but also as a preparation for the more active measures. It consists of the application of water by the hand preferably covered with a bath glove or holding a coarse wash cloth. The object of the covered hand is to get better friction and to get better reaction.

In acute febrile conditions the patient is laid on the bed, which has been prepared with oil cloth, woolen blanket and old sheet. The face is first bathed with water at about 65° to 50°. Beginning with a water temperature of 90°, the chest, arms to the elbows, back and abdomen are bathed and the parts rubbed by the cloth, which is frequently dipped in the cold water and squeezed out over the parts. For the first ablution the wash cloth may be used wrung out so as to get a mild effect and to gain the confidence of the patient.

The gentle impact of the water, accompanied and followed by gentle friction, arouses the peripheral nerves, and this refreshes the entire system.

The refreshing and antifebrile effects may be increased in strong patients with fever by not drying the body until the bath is complete or by simply wrapping the patient in a dry sheet and letting him dry spontaneously. By modifying the temperature of the water and the length of the bath the antifebrile effects may be modified. The bath may be repeated as often as the symptoms demand it. Sometimes even this bath has to be worked up gradually, especially in patients who come into the hospital without any previous bath habits.

Baruch says that he has never seen a patient too feeble to accept some form of hydrotherapy and by the gradual method of procedure he is able to measure the patient's reactive condition and to prescribe an adaptable hydriatic procedure.

The ablutions of friction produce peripheral shock and subsequent stimulus which are refreshing and the dilitation of the superficial vessels, as will be shown by the rosy hue of the skin.

In typhoid this form of bath is effective and really more practical in the average case than in the full bath or the Brand bath.

The half-bath is given by setting the patient into a tub with enough water in to reach above the pelvis, at a temperature of 75° to 85°, after having put a cold wet towel around the patient's head. The attendant bathes the face and begins to rub the back with the left hand while he dips water over the patient's shoulders with the right hand or a dipper.

The patient at the same time rubs the front of the body with both hands. Colder water is added gradually until the patient feels cold, when he is removed and dryed.

Another form of bath which gives a great reaction is by pouring from a pail or pitcher a stream of water upon the head and shoulders of the patient. The stimulating effect of this treatment will vary with the height from which the water falls and the temperature of the water. It must necessarily be brief and energetic, and so given, the reflex effects upon the respiration, cardiac action, assimilation and nutrition are decided and unmistakable.

Another bath which does not fatigue the patient and which is often accepted

by the patient and friends when more active baths are not acceptable is the sheet bath.

The sheet wrung out of water from 50° to 80° is spread on the bed already prepared. The head and face are bathed in very cold water and a cold turban is wrapped about the head. The patient is laid on the wet sheet and wrapped in it and tucked in above and below, and the sheet so arranged that no uncovered parts are in apposition.

The first impression will be a shock to the peripheral nerves accompanied by a deep gasping inspiration. This shock is readily overcome by the patient's own high temperature and also by the manipulations of the nurse, who gently but firmly sweeps her hands over the wet sheet, passing over the whole body successively.

Baruch says it should always be remembered that the patient with a temperature of 103° or over is not in danger of taking cold.

The sheet can be modified in chronic diseases where more stimulation is desired by having the patient stand, which gives the attendant scope for more vigorous friction. This is called the Drip Sheet. In this bath the patient stands in water twelve inches deep with temperature at 100° to prevent chilling.

The entire body is covered with the sheet dipped in water at 80° to 60° and not wrung out, tucked in at the shoulders and wrapped around the legs. The attendant now makes rapid passes over the sheet down the back, sides and extremeties, with the hand occasionally slapping the surface to increase mechanical irritation. A basin of water 10° or 15° below the temperature of the sheet water is poured over the head and shoulders two or three times at short intervals. This is alternated with friction from five to ten minutes according to the reaction of the patient, when the sheet is rapidly withdrawn and the patient is wrapped in a woolen blanket and thoroughly dried with woolen towels. This is followed by friction which increases the skin reaction. The patient for the first few times comes from the bath somewhat fatigued and this fatigue must be an index for the extent of the baths. If possible it is well for the patient to take a little walk in the air after the bath.

The Germans have a cold rub which many favor which is a modificatiin of the drip sheet in that more active rubbing is done and a more decided hyperaemia is produced. Frequent slapping helps to attain this object. The therapeutic indications of this procedure are anaemia of feeble persons, phthisis, and other conditions of defective haematosis.

Von Norden says "that even in chronic kidney diseases the judicious use of cold rubs may be of great benefit.

Another form which has been long in use is the wet pack. It is given by spreading a large coarse sheet, well wrung out of water at 60° to 70°, on a woolen blanket on the mattress protected by an oil cloth.

The patient, with a wet turban on the head, is snugly wrapped in the wet sheet from neck to heels, when the sheet is tucked in. The woolen blanket is then snugly wrapped over all and well tucked in. Much depends upon the exclusion of air from beneath the blanket cover.

The patient remains in the pack from one-half hour to an hour.

All wet packs must be followed by some hydriatic method which will restore tone to the cutaneous vessels which have been relaxed by it. This may be done by the half bath or the cold affusions or the douch at from 70° to 80°. The room during the pack should be well ventilated. The pack produces rapid excretion through the

skin as may be recognized from the odor of the wet sheet noticable upon its removal.

Extensive experiments with the fatigue curve after a wet pack and cold douch show that although they seem fatigued at first, the ultimate effect is decidedly tonic. The calmative effect of an hour's sleep in a gentle poultice is valuable in neurosis, hysteria and some heart troubles.

Cold wet compresses can be applied with great comfort to various parts of the body, as the head, the throat, the chest, or abdomen. They should be covered with flannel fastened snugly and changed about once an hour and should not be covered with oiled silk, as this converts the compress into a poultice. The object is to get a hyperaemia by reaction. Deep cooling of parts can be obtained with ice bags, coils, etc., if needed, as in meningitis, peritonitis, etc. When removing a compress the parts should have a good alcohol rub accompanied by friction and a warm covering.

Hot compresses are wonderfully useful and comforting and to be effective must be very hot.

The parts should be anointed before using the hot compress. Pieces of old woolen blankets make good compresses and should be thoroughly wrung out, and the well covered parts are exposed just long enough to slip the very hot fomentations upon the affected part. If the patient complains of the heat he should be persuaded to bear it as he is in no danger of being burned if the compress is absolutely dry and the skin well anointed.

Another bath we shall consider is the full bath, which may be either cold friction full bath or warm full bath. The cold friction full bath is known in its best form as the Brand bath because it was designed by Ernest Brand of Stettin. In acute cases the tub is placed under the patient's bed, filled with water at from 70° to 65° as required. If possible it is best not to give it in the ordinary bath room. The conditions are not good, the air in so little a room is bad and the transporting of the patient may be injurious. The patient receives a stimulant (alcoholic according to Brand), (four ounces of strong coffee according to Baruch.) He is then disrobed and napkin pinned about the loins. His face is bathed in ice water and if too feeble to step into the bath he is lifted into it. The tub should be filled with water from 70° to 65° and the patient's entire trunk and extemities must be submerged. As he is lifted in he gasps and shudders for a moment but gentle assurance and calm demeanor with no actual force rarely fails to quiet his apprehensions. The head should be supported by an air cushion or by the nurse's left hand while with the right hand gentle friction or chafing will be practiced over successive parts of the body, which is regarded as of supreme importance in preventing chilling, collapse, cyanosis and heart failure. The effect of this cutaneous chafing is a suffuse cutaneous redness which is marked contrast to the previous color of the surface and demonstrates that the caliber of the superficial vessels is being considerably enlarged. A small pulse or a chilliness need not be regarded as threatening unless the face becomes cyanotic. Several times during the fifteen minutes of the bath a basin of water at 50° is gently poured over the patient's head, around which a handkerchief folded like a blanket has been tied with the knot over the nucha. This forms a gutter and prevents the surprise produced by cold water flowing over the face.

The patient should then be put in a double woolen sheet on which an old soft sheet has been laid and wrapped snugly with a covered pillow under his head and plenty of hot water bags at his feet. If the temperature has been high he is allowed to lay five or

ten minutes in the blankets, when he is wiped off and wrapped again in warm blankets with heat to his feet.

The shock to the nervous system by the impact of cold water upon the entire body and the stimulus invariably following such a shock are intense and would overwhelm the fever patient if they are not judiciously applied and carefully apportioned to the actual condition of his nervous centers.

The coats of the superficial vessels are stimulated, reaction from the first shock ensues, the vessels contract and dilate actively, the skin becomes ruddy, as the cool blood is sent from the dilated vessels back to the interior of the body, the body is cooled, elimination is aided, and quiet sleep follows as an evidence of its sedative effect.

Osler gives statistics which show a death rate of 24.2 per cent to 6.6 per cent after the introduction of hydrotherapy. Baruch says: "While I enforce the method for its results, I am not enamored of the practice," and he also agrees with Osler in saying that he hopes a more practical and agreeable mode of saving life in typhoid fever may be discovered. While much might be said of hot baths which are beneficial in selected cases, and which being so much easier to use we all use more often, I will only say that for all round sedative and relaxer of a nervous patient I have never found anything in my own practice better than the hot full tub followed by a light alcohol rub. Among many useful douches. I would be glad to describe had I time, is the Scotch douche which is produced by alternate streams of hot and cold water projected upon the body either standing or upon a table, with some force. The active thermic irritation of these douches produced by the percussion and vibrating irritation of a warm stream of water arouses the vaso-motor system more energetically than do most other forms of bathing. The nerve centers are aroused, the respiration deepened, the circulation invigorated, and the secretions increased. It is practically a thermic massage. The rain douch or the shower bath we see used very commonly for its stimulating effect, especially when preceded by a hot shower and followed by a vigorous massage.

Baruch has had a great deal of experience with hydrotherapy in treating disease and says that nothing equals it in improving nutrition and stamina of the patient. He says also that his observations agree with those of Winternitz, as follows: Water is the most simple, strengthening and hardening remedy; it may be used everywhere and by anyone. Even the most simple, luke warm rubbing down of the entire body on leaving bed, exercises the nerves and muscular system, refreshing and stimulating the nervous system and reflexly the respiration, circulation and digestion. It may be used in the poorest families.

There is no advantage in brandy and salt rubs.

The shock-like action is demanded. The great advantage of cold rubbing is that it may be applied at home by even an inexperienced person and its good effects may be attained for months and years by daily practice, especially among the less well-to-do, and all of which give it its extraordinary value.

Other baths, as hip baths, foot baths, and various partial baths might be discussed with profit, but I have already taken more time than I should and will close this paper now, hoping that our mutual study of the subject has given you, as it has me, a much deeper appreciation and better understanding of the possibilities in hydrotherapy scientifically applied.

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A few deaths have been reported following the use in children of antimeningitis serum.

RADIUM

FRANK F. CASSEDY, Ph. B. M. D.
Portland, Oregon

ITS MODE OF ACTION AND METHODS OF APPLICATION.

Radium is probably the Master Catalyst of the universe. At present we can neither prove nor disprove this statement. There are several facts about this element which should guide us in its use.

First—It is distributed in minerals and earths in a form of extreme subdivision. Hundreds of tons of rock, earth and material have to be worked over and many processes have to be gone through before either the Sulphate or Bromide of Radium can be isolated in a concentrated form. Hence we judge from this fact that on the earth Radium does its marvalous work by being well distributed in minutely divided form through the earth and in the water of the earth, and its degredation into other elements is best carried on under these conditions. Mineral deposits in many parts of the world, and waters flowing in the vicinity of such deposits, and other springs of water whose surface is unknown, are radio-active to a greater or less degree.

Second—Radium is constantly breaking down and being degraded into other elements and in this operation emanations are being thrown off. Radium is the center of a tremendous heat, light, and emanation activity. In concentrated form it produces ulceration and destruction of tissue extremely difficult to heal, and may produce serious organic and functional injury to the human body. From these observed facts it seems to me that Radium in a concentrated form is always and constantly destructive, and the heat, light and emanations thrown out by Radium in a concentrated form are far too powerful to produce any reconstructive action whatsoever, and in order to secure beneficial action from its employment for human ailments it should be employed in extremely small dosage. The reckless use of the powerful agent will kill just as surely as a strong alternating electric light current, although it may not be as sudden. Radium is such an intangible thing that the reckless and unwary should be warned as to its use.

Third—If, as I believe, Radium is the Master Catalyst of the universe this marvelous element is not a remedy at all in the ordinary sense, but on the contrary its whole action is degredation of itself into other elements with attendant emanations, and the production of radio-activity in every form of matter in its vicinity or within reach of its activity. Its range of action is immense. It cannot be computed or even guessed at. Radiation and Radio-activity are not synonyms. Radiation is the force of the universe opposed to gravitation or more properly speaking, complementary to gravitation. Radio-activity is the power possessed by every element and every form of matter in the universe to suffer degradation and change of form and to give off emanations. Absolute, almost infinite subdivision of matter beyond the limits of even the ultra-microscope is a prerequisite condition in order that the force of radiation increases its push on matter inversely as the size and bulk of matter decreases. Gravitation increases its pull on matter directly as mass and bulk of matter increase. If one can see in his mind's eye a vast circle of eclipse extending into the most remote confines of the universe, with suns, planets, rocks, trees and human units pulling matter to their bodies by the force of gravitation, and degrading, finely subdividing, pulverizing this matter after it has served its purpose and then pushing it off by the force of radiation to the uttermost confines of the universe on the return stream of this vast circle of eclipse he will witness the eternal cy-

cle of the birth of worlds, of stars, of planets, of the earth and all things upon the earth, of their growth, their decay, their disintegration, and the new birth of others of their kind.

The waves and billows of gaseous vapor composed of burning gas and thrown off from the sun (our sun), and the streams of matter thrown off from comets and hurled into space and carried through the ether by the force of radiation. The particles composing the streams of burning vapor from the sun may by electrons, the ultimate unit in the subdivision of matter. The ether, that ever pervading and intangible entity, which the electron grips much as the air ship grips the air, and through which the light, the heat and the electrons from our sun come to the earth, the final master of all. It has no concrete form, yet it is all pervading, and the binding link and vehicle so to speak for the transmission of the electrons in their constant movement.

In my new Theory of Drug Action published last year and described in a paper entitled "Radiation, the Force Which Maintains Life and Cures Diseases," I call attention to the universality of these two laws, to-wit, the law of gravitation and the law of radiation. As noted above the pulling force of gravitation and the pushing force of radiation create and keep in action the eternal cycle of the universe. The sun of our planetary system keeps the planets of our system in their orbits by its power of gravitation, and by its power of radiation pours its flood of heat, light and emanations onto the earth and other planets. The human body shows the same processes of birth, growth, development and decay, and the human body absorbs and casts off elements in the same way. My theory is a generalization of the known action of these laws as applied to the human body. Furthermore, the new Science of Crystals shows that practically identical processes of birth, growth, development and decay (degredation or change into some other form of matter or element) occur in rocks and minerals with those of other forms of matter. This we would natually expect in the presence of the universal laws of gravitation and radiation.

As a matter of fact we know very little of the ultimate physical and chemical actions of the human body. We do know, however, that all forms of matter which are acceptable to the human body and which are absorbed by the body on its own volition like air, light, heat, emanations in the ether, or matter introduced into the body for sustenance and as medicinal agents, must be in a state of subdivision far beyond the ken of even the ultra-microscope before being absorbed and utilized in the human laboratory.

The human body takes what it needs, works it over in the human laboratory, rejecting waste and unnecessary matter through the various eliminating channels without losing time in the elaboration of either waste or unnecessary material. The human body must do this to keep the machine going and effective and as soon as radiation within the body can no longer do its perfect work then either disease or death ensues. In either event the degredation of material is checked or stopped. The finely divided matter leaves the body in a constant stream and is forced away by the power of radiation to the uttermost confines of the universe in common with the stream of matter being pushed from all other forms of matter both animate and inanimate. The enzymes of the human body have their counterpart in the catalysts of the vegetable and mineral world, and all are working along the same line, namely, to promote fine subdivision of and degredation of all matter to keep in operation the eternal cycle of the universe.

Some recent experiments show the termendous force and persistence of matter in a state of almost infinite subdivision so small as to defy detection by the most powerful microscope. I refer

to the filter experiments. Solutions containing the germs of a large number of disease were used to inoculate guinea pigs and rabbits both before and after filtration through these unglazed filters. Before these solutions were filtered the microscope showed the presence of the germs. After filtration not a single germ could be seen by the microscope. Nevertheless, these solutions produced the same effects of disease transmission in the rabbits and guinea pigs after filtration as before. Is the germ theory wrong? Are germs an end product in the process of healing? I confess I do not know, but this experiment proves conclusively the marvelous power of matter finely subdivided and shows the transcendental force maintaining life and curing disease is ever active.

The subtle power of Radium consists wholly in its emanations. These emanations promote degredation of all foreign substances introduced into the human body as well as the tissues of the body. These emanations also increase the radio-activity of all other elements (medicines of every sort and kind), so there is really a double effect from Radium on the human body. There is obviously a danger point in the administration of Radium where Radium not only ceases to be helpful and constructive (Radium is constructive in the negative sense of promoting free and unobstructed degredation of matter through radiation), but becomes destructive and deadly in its action by destroying tissues. The human body has a limited capacity for degredation of matter and when this limit is reached the engine cannot be speeded up without structural injury. The human body is a fairly good machine, but its mechanism is extremely delicate and the forcing of the machine will inevitably result in disease or death. A slight increase in the radio-activity of the body will increase degredation slowly, while a rapid increase will destroy tissues and make new centers of foci of disease. The latter condition is exactly what happens in cancer conditions, in my opinion, where concentrated form of radium is buried in the cancerous tissue or growth. Radio-activity of the body is increased beyond its capacity, the process breaks down, degredation of tissue occurs so rapidly and completely that new foci of disease are established and the body is submerged by the cancer poison overwhelming the system. It is the emanations which do the work. Why put the radium in the tissue? Radium produces no local action whatever except destructive action. The emanations will do their work more thoroughly if placed remote from the part affected by breaking down of tissue in many cases.

I have used radium for a variety of conditions and in different forms of disease for several years. I have used it in form of pads, triturated with sugar of milk, and in the form of radio-active water. Each form has been tested for radio-activity by either the electroscope or the photographic plate, so there is not the slightest room for doubt that all forms of radium which I have used have been thoroughly effective and contained radium in a quantity to produce degredation of matter—its normal function. The triturations which I have used have been triturated after the method of homeopathic pharmacists up to the twelfth, thirtieth and sixtieth decimal triturations. This might at first sight indicate that there was so little radium in these triturates that they possessed no radio-activity, but each of them made pictures on the photograph plate, so there is no room for doubt. Instead of the repeated triturations up as high as the sixtieth decimal, made by Boericke & Tafel of Philadelphia of these triturations decreasing the power of the contained radium to produce degredation of matter and carry on radiation, I am convinced that the mere trituration of these triturates by power pestles (they were not mixed merely but they were triturated) increased the radio-activity

of the contained radium because it placed the component particles in a still smaller and finer degree of subdivision, and it was for that reason more acceptable to the body processes of radiation.

The radio-active waters which I have used are those made from the blocks of sulphate of radium (an insoluble salt) perfected by Swedish scientists, and the waters have all been tested by the electroscope. I am convinced that all methods of administration water rendered radio-active by the sulphate salt is the most natural, the most effective and the least dangerous.

I have used the pads prepared with triturations noted above and find their use at short intervals for short periods is very effective.

The experiments with a view of cutting out certain rays and allowing others to throw their emanations I do not consider conclusive as to the efficacy of any set of rays or combinatons for curative effects.

We desire the effective work of the radium. If efforts (which in my opinion in most cases fail) are made to select certain rays or emanations to the exclusion of others, we are not securing the normal action of radium in producing degredation and promoting radiation, but on the contrary are interfering with the real beneficial action of radium and defeating the purpose for which it is administered.

It is extremely difficultt for some minds to get away from the necessity of administering all medicinal agents in poweral doses. Radium stands in a class by itself. It is not comparable to any other agent.

If we feel our way carefully aud cautiously with radium I believe we will find it a great catalyst for producing degredation of matter, carrying on radiation in the human body, and making all tissues and contents of the body radio-active.

A ONE MAN BUSINESS

FRANK P. DAVIS, M. D.
Enid, Okla.

The practice of medicine is a one man business. It always has been a one man business. In this respect it has not kept pace with modern business and industrial advancement. In all other lines of endeavor team work has supplanted the one man idea. Even in law we find the team principle being adopted and a number of attorneys in partnership in practice.

There are many advantages to be gained by team work, and they apply just the same to the practice of medicine as they do to any other line of work. It is an economical plan, and it reduces the fixed expenses of the business to the minimum. It requires but one office, library, outfit of instruments, telephone and office girl where each individual member of the firm requires a complete outfit when working alone. Hence they can do work at a less expense. It increases practice, as the individual will prefer to go where he has the counsel of a number rather than one. There is believed to be much wisdom in numbers.

Two or more physicians may form a working partnership and have a better equipped office at less expense than they could maintain two separate offices. One reception room instead of two, one office girl instead of two, and one telephone will alone reduce the fixed or overhead expenses one-half.

The reason that more physicians have not combined to handle their business is probably due to the unreasonable jealousy that appears to exist among members of the medical profession. It is easy enough for a number of men to get along together if they have no habits that are objectionable to their associates. If they are congenial otherwise there is no reason why they should not

share the same reception room, library and operating room. Each would require a private consultation room.

I have been asked how they would handle transients. This is readily met by having the office girl send them in rotation to the men who are in the office. Every man will then receive his share of the transient practice.

It is well for each to have a different special line when cases falling under these heads may be referred to the proper party.

The most successful partnership practice that I have ever met was composed of two general practitioners. Each held his own general work. The transients were received in rotation. All office practice or any practice requiring the services of both members of the firm was divided equally after paying expenses. Thus each held all his general work and only the office practice and special and surgical work went to the firm. They fitted up a fine operating room and had most of the necessary appliances for all special work.

What we must have is greater efficiency in medical practice. The increased cost of living demands that we increase our income. I am of the opinion that if we would give half as much thought to devising ways and means of increasing our income as we do to decreasing our expenses we would not be bothered so much about the high cost of living . It is those whose incomes have decreased that are feeling the expense, while their expenses are in reality no higher than heretofore their incomes are as a rule much less. When a man begins to retrench he feels the burden more than at any other time. He doesn't give the same thought and attention to increasing his business as he does when times are good.

Reduce fixed office expenses by combining a number of congenial men in one first-class office. Don't try to cut the living expenses unless absolutely necessary. Work a little harder and think more and increase your income to meet the demands of the expense of living. Following the lead of Cato, I am of the opinion that you should collect what is due you.

EUGENICS

E. T. FISH, M. D.
Milwaukee, Wis.

Dux femina erat. Eugenics! Do you know that there are laws in Wisconsin? Surely you cannot be so shortsighted as not to realize that this state has laws and indeed some of them very good, such as the laws on Eugenics, the practice of medicine, and the advice "Go to church on Sunday." We will consider the law which relates to marriage—Eugenics. It is very simple, very plain. It says that before a couple can be joined in the holy bonds of matrimony the groom must undergo an examination of a critical nature to ascertain whether he has ever been exposed to the possibilities of venereal disease, and if so, whether he is afflicted with the present active or lurking dormant germs of urethritis or lues. If so, the marriage is forbidden and the loving pair are blasted. Of course it is expected that this law will be pronounced null, and I believe it already has been by one judge. It is a very considerate law in that it does not subjugate the prospective and blushing bride to such little annoyances as to establish her virginity or to prove to the world that she too is as pure and innocent as the Goddess of Liberty. Now with your kind permission, Mr. Editor, I should like to take a rap at this law. In the first place in my opinion it is a rotten piece of legislation, and right here I want to say that in a practice cover-

ing thirty years the saddest cases of noli me tangere that related their cases to me were grooms who were suffering the agonies of urethritis and cordee, the result of too much confidence in the bride. I doubt whether some of these young men have recovered and I know that many of the brides were relieved of their pelvic adnexae which rendered them sterile and coarse, and I firmly believe that many of the grooms are still afflicted with stricture. It would almost seem that an amazon had engineered this bill. Of course this was not the case. No woman could have the audacity to attempt such a thing; but it nevertheless is a body blow to the benedicts. Come to think, Mother Eve gave Adam a piece of "con" that ought to open the eyes of the sterner though softer sex. As I said, the law is not only partial but it calls for a scientific examination of the groom and the physician's compensation is the munificent sum of $3 per examination, including a certificate of health. It does not take much of a doctor to realize that this means a Wasserman examination of the blood and it is equally well established that this examination proves nothing except when the reaction is positve; that it may be negative for a number of times and then at once become positive, and that a positive reaction means syphilis and negative does not mean anything. Hence it might take months in order to be certain of one's ground. Again, I do not believe that, taken as a whole, one physician in 100 (city, county, state,) is prepared and able to make this test, and it cannot be done for $3. A fair compensation would be about $15. In order to make the test one must be a bacteriologist, and the modern expert who can not make the reaction X or —X is a failure. Give him time and the reaction will be 100 per cent suspicions to say the least. The modern medical college aims to polish the candidate for the degree of M. D. to such an extent that he is almost a complete failure and needs to buck the business for a number of years before he can develop into a physician. I do not admit for a moment that the present day graduate is as able and competent as the man who took his degree twenty-five or fifty years ago. Certainly we graduate some great men who develop into great physicians and surgeons, but the profession is surrounded by a Chinese wall and the graduate thinks that without a struggle he is a Murphy or a Kelly or an Osler. He is not, however, and is not even on the way. Soon the course in medicine will be practically prohibitory, so that only the pinheaded and degenerate sons of the wealthy can hope to attain the degree. In the name of suffering humanity, abolish, ye sons of Aesculapicus, abolish these boards of medical examiners and return to the days of competition and survival of the fittest. The old Allopath now calls himself the regular. The Homeopath is more consistent for he kills nobody and practices simply suggestive medicine. Fifty per cent of our patients will recover without medicine, 40 per cent need a little suggestion, a few will become chronic invalids and a small percentage will die in spite of Hades and high water. A great deal of the practice of medicine today is the practice of empiricism, hot air and quackery. I am convinced that there will be and now is, no trouble to convict the groom and block the marriage when the Wasserman test is carried out.

Gonorrhoea. We all know what the "morning drop" means. A man may have a gonorrhoea and be apparently cured. He may visit a physician and receive a certificate of health and still have a stricture and chronic gonorrhoea or gleet. In such a case there are often no symptoms except when the patient arises he may by milking the

penis cause a drop of pus to appear at the meatus. The man has the most dangerous form of gonorrhoea. It is, I think, the most prolific cause of pelvic disease in women it has been my privilege to meet. I have operated more women with ovarian and pelvic disease due to the gonococcus than for all other conditions combined. When it does not result in actual pelvic disease, abscess, metritis, pyosalpingitis, cellulitis, etc., it usually causes primary or secondary sterility and leuchorrhoea. It is a dangerous condition because it often escapes notice and the man thinks he is well. The washings from the kidneys keep the parts bathed during the day and often the only evidence is a drop in the morning at the meatus urinarius. Then there is a form of gonorrhoea which is latent. For all practical purposes the man is well, but he gets on a spree or indulges in alcoholic beverages and to his amazement he has warmed up an old dose which he thinks is new and that he has been stung again. Sometimes in women it is very easy to overlook a gonorrhoea for the reason a douche can be employed and so again it becomes necessary to run the finger along the urethra to the meatus. This is especially true when the woman is anxious to cover the ear marks of the disease. I can not see how a great deal can be gained by the present law. We must go further. I do not believe that any law will hold or at least be enforced. We are even told by the courts that a marriage ceremony is not necessary and that a couple can agree in writing and in the presence of witnesses to live as man and wife, and that such an agreement is as binding as when a license is secured and the parties are united by a justice of the peace or a minister of the gospel. There seems to me but one reasonable course to pursue. It is very proper for the law to require both the groom and bride to undergo an examination such as any ordinary physician can make. Omit all technical tests and frills. The aim should be, and public demands, merely that the contracting parties are macrascopically free from venereal disease. Another step, more important than any law, is the education of the sexes. This should not be done in the public schools, for this I consider to be a condemnable practice, but every mother should instruct her daughter, after the girl has reached the age of 14 years, in the consequences of the sexual act. Fathers should do the same with their boys, pointing out not only the danger of disease and of conception, but most of all the disgrace.

It may seem strange that such a hardened sinner as I should advocate religious instructions, but, strange or not, I firmly believe that our children should be given religious instructions and pointed to good and evil habits. We are becoming a Godless race and I for one advocate the Sunday school versus the palm gardens and tango. If you want to bring ruination and disgrace to your sons and daughters, close the Sunday schools and open the dance halls, saloons and shady hotels. I realize that my acquaintances will smile and say "That's all right for Fish; he's all in," but I am sure that they who dance must pay the violinist. Religion has a civilizing influence and certainly no harm can come from it. Open your eyes and get wise.

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Hyoscyamus is less of a cerebral excitant and more of a hypnotic than is belladonna and is less stimulating to the heart and respiration. Generally speaking, hyoscyamus is preferable to belladonna when a sedative effect upon the sphincter of the bladder is indicated. Hyoscyamus is a valuable addition to purgative formulae to promote gentle and painless action.

The Medical convention which was held at French Lick Springs, French Lick, Indiana, some few weeks ago was attended by a great many of the prominent physicians of the country. A group picture was taken and is reproduced here, so possibly some of your friends may be among the number. See if you can make them out.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 47 January Recorder)

ANEMIA, SPLENIC.

Not much to be anticipated from application of drugs, although the following, the arsenates of iron, quinine and strychnine with nuclein; berberine hydrochloride and red-bone marrow may be effective to some extent. Liquor Arsenii Comp. (Barclay) is suggested. early removal of the spleen seems to be the only radical measure looking toward relief.

ANEURISM.

To lower tension, veratrine, with aconitine to slow circulation and relieve pain. Iodized lime is indicated as a reconstructant. Morphine, in small dosage, with croton chloral hydrate, is best for relief of pain, although the hyoscine, morphine and cactoid combination, if employed carefully, may act nicely in this direction. Ergotoid and hydrastine hydrochloride are useful as arterial contractors. To increase coagubility, calcium chloride.

ANGINA PECTORIS.

To control the paroxism glonoin, gr. 1-250 followed by strychnine valerate gr. 1-64 hyoscyamine sulphate gr. 1-100 to 1-500 every half hour to hour to full relief. During intervals to tone heart, cactoid or strophanthin, with the arsenates of iron, quinine and strychnine with nuclein of strychnine arsenate gr. 1-64; quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; Iodized lime gr. 1., as alterants. If glonoin is not had during the paroxism, amyl nitrite may be administered by inhalation. Aspidospermine to relieve dyspnea; atropine valerate to bring blood to the efferent vessels and to sedate; sodium nitrite to lower tension; morphine for the relief of pain and to overcome spasm, may be indicated. In malaria quinine ferrocyanide as an antiperiodic, with digipoten to support the heart. In syncope 20 drops of ether or seven grains of camphor dissolved in one dram of olive oil, hypodermically. The patient subject to angina should never be without a supply of glonoin in granules 1-250 grain at hand at all times as the early application of this agent may abort an otherwise severe attack.

ANOREXIA.

Look for and remove cause. Clean out, clean up and keep the alimentary canal clean. Force elimination, particularly hepatic. The primary indication is for the following: Calomel gr. 1-6; Podophyllin gr. 1-6; Bilein gr. 1-8; Strychnine arsenate gr. 1-250, the dose being one every half hour till two to four are taken; or, Calomel, Podophyllin, and Bilein, of each gr. 1-12, and Strychnine arsenate gr. 1-500. Saline laxative the following morning. To stimulte the appetite, either brucine, quassoid, juglandoid or hydrastoid before meals with one of the digestive compounds thereafter. Piperine, oleoresin of capsicum and menthol are also useful in whipping up a flagging appetite. The bitters best when given in solution. Ten to twenty drops of dilute hydrochloric acid with meals in four to six ounces of water ,when improvement is slow. Plenty of outdoor exercise. For children, brucine or quassoid.

ANTHRAX.

Push elimination to the limit. Calcium sulphide to saturation to combat infection, with nuclein solution hypodermically to reinforce leucocytes. To abort in early stage inject one dram in solution of water of ichthammon into the pustule and apply the distillate of shale tar or other antiseptic oil freely on gauze packs. After incision insert 95 per cent phenol, neutralized in one minute with alcohol, or formaldehyde, a solution of the 40 per cent standard solution in eight ounces of water. potassium permanganate may be employed locally as an antiseptic. For pain, the hyocine, morphine and cactoid combina-

tion, butyl-chloral hydrate or cannaboid. Echinacoid with irisoid, will sometimes abort. Nuclein solution, to induce leucocytosis, invariably indicated in full dose, hypodermically. For fever, aconitine or gelseminine.

APHONIA.

Invariably look for and treat cause. Autotoxemia is frequently a distinct cause and this gives indication for enforced elimination. To stimulate relaxed tissues, strychnine, brucine or collinsonoid. The throat and nose should be sprayed with a mild antiseptic alkaline solution several times a day, followed by either a solution of Camphor and Menthol, of each grs. 20 in Liquid petrolatum oz. 1, or an ointment of the following formula: Camphor, grs. 3; Phenol, grs. 2; Eucalyptol m 2½; Chlorbutanol, grs. 5; Menthol, gr. 1; Petrolatum base, oz. 1. In nervous or hysterical cases atropine valerate, strychnine valerate or scutellaroid, with aconitine in painful contraction of the throat of public speakers, with collinsonoid as an alterant. Potassium dichromate is frequently helpful in this condition, to be given in small frequent doses. When there is laryngeal catarrh, inhalations of ammonium chloride vapor. Cold packs to the throat at night often bring relief.

APOPLEXY.

Clear out bowels with either elaterine, elaterium or croton oil, with high colonic flushing an hour later. Veratrine hypodermically, or aconitine by the mouth to equalize the circulation and lower tension. Venesection in very plethoric patients. To prevent threatened seizure, lobeline sulphate or lobeloid to full relaxation. The saline laxatives, with colchicine are indicated in practically all cases. If there is tendency to ascites, apocynoid is indicated. To equalize the circulation, the combination of Aconitine hydrobromide, gr. 1-800; Digitalin, gr. 1-64; Strychnine arsenate, gr. 1-128, one in mid-morning, one at mid-afternoon and two at bedtime. Gouty or rheumatic conditions best met by either Calcium carbonate, grs. 10; Lithium carbonate, gr. 1; Colchicine, gr. 1-500 with aromatics; or, the Sodium and Xanthoxyloid Compound. To hasten absorption of clot, arsenous iodide or iodized lime. For paralysis subsequent to seizure, strychnine arsenate, avenin, neuro-lecithin. To relieve meningeal pain, the hyosince, morphine and cactoid combination, butyl-chloral hydrate or codeine sulphate. Opium should never be employed as a rule. For insomnia, Sulphonmethane, grs. 5; Scutellaroid, gr. 1-3; Solanine, hydrochloride, gr. 1-32; Cactoid, gr. 1-64.

APPENDICITIS.

While this is now considered a surgical disease practically in every instance much may be done medicinally, if suppuration has not occurred. If seen early, clear out the bowels with calomel and podophyllin, with or without bilein, followed by castor oil. High enemas of normal salt solution, with patient in lateral prone position and hips elevated at time oil should operate. Hot Epsom salt solution compresses, one ounce of the salt to the quart of hot water, over region of appendix. To relax and relieve spasm, the hyoscine, morphine and cactoid compound or hyoscyamine with strychnine arsenate. Follow the clearing out of the bowels with the sulphocarbolates. Later the Bacillus Bulgaricus. To increase resistance, nuclein solution hypodermically in all cases. No food for at least twenty-four to forty-eight hours, then a light diet—liquid. In all suppurative cases operate at the earliest moment. The Coli-Bacterin or the Van Cott Combined-Bacterin should be used in those cases where pus is supposed to be present, or where it is demstrated fully, or where suppuration persists subsequent to operation. Autogenous bacterins may be preferable to stock bacterins subsequent to operation.

ASCARIS LUMBRICOIDES (ROUNDWORM).

No food after 4 p. m. Four to six of the following: Calomel, gr. 1-10; Santonin, gr. 1-10 at bedtime. The following morning one half hourly for four to six doses. After several hours a full dose of saline or castor oil. Another satisfactory agent is the worm remover of Barron, consisting of the following: Chelonoid, gr. 1-6; Santonin, gr. 1-10; Podophyllin, gr. 1-32, three or four to be given at night and one hourly to effect the following day. Repeat weekly until all parasite disappear. Bitter tonics, juglandoid, quassoid, hydrastoid, brucine or chelonoid are frequently indicated. For intestinal fermentation the sulphocarbolates. Salt water enemas.

ASCETES

Invariably take cognizance of cause. Stimulate elimination in recent cases with dry diet and tonic alteratives. Elaterium or elaterin, followed by apocynin, gr. 1-12 every hour to maintain effect. To increase kidney function and overcome urinary acidity, exhibit strychnine arsenate, gr. 1-64; digipoten, grain 1-2 and lithium benzoate, grs. 2 1-2 at intervals of two, four or six hours, and alternate with either Lithium benzoate, gr. 1-6; Barasmoid, gr. 1-6; Collinsonoid, gr. 1-6; Arbutin, gr. 1-6; Oil of juniper m 1-24; or, Hydrastine hydrochloride, gr. 1-64; Berberine hydrochloride ,gr. 1-64; Helenin, gr. 1-12; Laptandroid, gr. 1-6; Eupatoroid, gr. 1-12. Cathartics and laxatives are invariably indicated, those suggested being blue mass, calomel, podophyllin, leptandroid and euonymoid, with the usual morning saline. Pilocarpine is indicated for the removel of excess fluids, but should be employed with care, the cardiac tone being sustained with digitalin. If of renal origin, arbutin in medium dosage is the indicated remedy. Barasmoid is a renal stimulant; irisoid to stimulate the hepatic elimination and to act as a cathartic; strophanthin, digipoten and caffeine to stimulate the cardiac function and increase kidney action.

ASPHYXIA.

Remove that cause. Loosen clothing. Place patient in fresh air and remove foreign bodies from mouth. Stimulate heart action by full doses of strychnine and digitalin-ether or ammonia hypodermically. Restore body heat with hot applications, blankets, hot water bottles, etc. Complete immersion in hot bath in some cases. Hot saline or hot coffee enmas in large amounts. With improvement established, strychnine and cactoid at intervals of two hours to sustain. If poisoning is suspected, the stomach tube, or an emetic as apomorphine hypodermically or large draughts of hot water in which salt and mustard have been dissolved. For congestion of the lungs and distension of the right heart, glonoin to full effect, the effect, if necessary, maintained with atropine or hyoscyamine. Always catheterize. Oxygen inhalations in gas poisoning. The pulmotor should be used if at hand.

ASTHMA.

Always hunt out the underlying cause and determine if it be cardiac, bronchial or hepatic disorder, or autotoxemia. To relieve paroxysm, apomorphine hydrochloride, 1-19 gr. hypodermically, followed by glonoin, gr. 1-250, or gr. 1-100; strychnine valgerate, gr. 1-64, and digitalin, gr. 1-64, with small drink of hot water every fifteen minutes. Full doses of lobeline sulphate to relaxation. In sudden and obscure cases alternate the first mentioned with lobeline sulphate. Aspidospermine is highly recommended by Solis-Cohen and J. M. Patton, the former insisting that it is practically impossible to treat asthma without this agent. To prevent paroxisms, full doses of strychnine, atropine and digitalin or digipoten, three or four times a day, alternating with iodized lime, gr. 1-3 to 1. To sedate and relieve insomnia in bronchial asthma, the bromides, butyl-chloral hydrate or the

following: Sulphonmethane, grs. 5; Scutellaroid, gr. 1-3; Solonine hydrochloride, gr. 1-32; Cactoid, gr. 1-64. The cactoid may well be increased to gr. 1-32 in such cases. In the neurotic form, zinc phosphate, gr. 1-64 and quinine arsenate, gr. 1-64 before meals. In all cases elimination must be looked after, as must be the digestion. The hyoscine, morphine and cactoid combination is very effective in overcoming the paroxisms in bronchial asthma. The throat and ears should be sprayed with an antiseptic oily mixture and may be anesthetized with benefit by spraying with the following: A three per cent solution of stovaine in a 1-5000 solution of suprarenal extract. The amonium chloride vapor is also beneficial.

ATROPINE POISONING.

Empty stomach with hypodermic injection of apomorphine hydrochloride and then follow with lavage. Physostigmine salicylate, 1-20 gr. hypodermically, every fifteen to thirty minutes till pupils contract. Tannic acid, as chemical antidote to form insoluble tannate, with charcoal to absorb alkaloid, if case is very recent.

BERIBERI.

Keep patient in bed. Small quantities of food, as fresh vegetables, fruits, salads and red meat, at frequent intervals. To sustain the heart, cactoid with strychnine arsenate, or digipoten. For paroxysms, glonoin. After the acute symptoms subside, tonics, as: Neuro-lecithin, or the arsenates of iron, quinine and stychnine with nuclein; or, Iron, Calcium, Potassium and Magnesium phosphates, of each gr. 1-12, with nuclein solution m 4. Morning doses of a saline laxative carrying colchicine. Massage, faradic current and magnesium sulphate sponge baths to give general tone through gentle exercise.

(To be Continued.)

MISCELLANEOUS

A FEW POINTS ON SO-CALLED "ITCHING PILES."

By W. T. Marrs, Peoria Heights, Ill.

Pruritus ani is known to the laity as "itching piles," although the latter term is for the most part a misnomer. The condition may or may not be associated with hemorrhoids. Even when pile tumors are present they may not be the cause of the intolerable itching which is so embarrassing to the sufferer. A person who suffers from this trouble is willing to give almost anything and everything he possesses for the hope of a cure. It discommodes one socially and in a business way and often makes sleep impossible. If it is a tough old intractable case that drags on for months or years, the victim becomes neurotic and despondent and may lose his grip on life. Not a few suicides have been prompted by this distressing ailment.

The patient should be given immediate palliative relief in all cases, but in order to promote a permanent cure the causative factors must be diligently searched for until they are found. If a tangible cause can be found, then the rest is easy sailing. If the case is found, after painstaking scrutiny, to rest in the category of neuroses, then we must worry along with it the best we can. Usually there are true and basic etiological factors if we can only land upon them.

Often there is a fistula through which a little irritating secretion oozes out with the formation of a crust. In such event the services of a rectal surgeon may be needed in order to cure the fistula and thus stop an irritating leak. A slight fissure may be the cause, in

which event a caustic may do good work. A stricture of the rectum or a tightly contracted anal sphincter may be at fault. Divulsion or dilatation may be indicated. The feces may contain a toxic element which in turn may be dependent upon a perverted hepatic function.

Again, piles which are forming and occasionally discharging may cause itching. There may be worms or broken or inverted hairs which are at the bottom of the trouble. Irritating paper or other substances used for toilet purpose have been known to perpetuate itching for years. Sometimes the trouble is an anal eczema pure and simple. And certain kinds of underwear cause itching. Certain foods may through idiosyncrasy affect this region. Sometimes a very benign and otherwise transitory pruritus is converted into a stubborn affair through chafing and rubbing, a habit which is so easily formed. In warm weather many corpulant individuals are harassed by persistent itching because of the heat and perspiration produced by the whetting together of the buttocks.

So the treatment depends a good deal on the cause. If the cause is removable, it should be removed. Anyway, stop the itching. If one thing does not act well, try something else. Pine tar is a top-notch remedy, although not a highly esthetic one. Apply it copiously on retiring and hold it in place with a suitable bandage, the T variety being preferred. Two or three persons have told me they obtained permanent relief from intractable cases by applying oakum and also by using it for toilet purposes. This substance is rich in pine tar.

Ointments are at least temporarily serviceable. Menthol, carbolic acid, camphor, resorcin, cocaine, chloral and many other things may serve a good purpose when employed in ointments. Sometimes a watery or oily fluid does better. When other measures prove disappointing the parts should be painted with a nitrate of silver solution.

The bowels should be moved with alkaline cathartics. If the liver function is sluggish, calomel and podophyllin may work well. If there is a pronounced neurotic element a few stiff doses of bromide of potassium, administered in the evening, will be indicated. If the patient suffers from any apparent dyscrasia a course of iodine of potassium should be given a try-out. The patient should be assured that relief may reasonably be expected in due time, but his own co-operation in bringing about a restoration to normal is of the utmost importance.

PSYCHASHENIA, OBESSION, DEVILS, OR DEMONIAC POSSESSIONS.

By W. Stuart Leech, M. D., Roseau, Minn.

(Continued from page 22 January Recorder)

"If the devil catch a man idle, he'll set him at work." This truism was brought out in our former article in which it was shown that by reason of disease, weakness, hypnotism, or mediumistic influences a person accidentally finds himself on a new plane of "being" other than the physical he is given a burdensome work which is frequently difficult to be freed of. The reader may, on the impulse whisper "delusion," "hallucination," "neurosis," or some other misnomer. There are many psychic cases portraying these symptoms but they fall altogether in a different category, having a physical aetiology alone. Heretofore we mentioned the condition of the iris or pupil in making a differential diagnosis, and will in this article show that this classical condition, excluding the Argyl-Robertson, is pathonogomic of obession. Or-

dinary dilatation from pain or as a result of drugs must not be overlooked in the final decision.

Pardon our digression for again referring to the superphysical, but replying to the doubter. can one refuse to believe his highest receptive faculties, can he deny the sensations of his very eyes, nose, or ears. just because he is confident of being on a new plane of "existence" where things are seemingly more real and transcendent than on the physical plane? As above so below is an old Hermetic maxim, and we find in all or any part of nature that a like cause will produce a like effect. We learn only through our sensations and perceptions and if we deny these just because we find ourselves in a different environment, then, there is no "Truth" on the physical or form world, all being delusional and nonexistent with Eddyism ruling supreme; but such is not the case. Our form world is an immutable fact. As we cannot deny the physical, try as we may, we cannot deny the superphysical although it is more evanescent and tonal. The mind of the "All in All" has no limitations and the mind of the son of the "All" (which is man) refuses to be limted by the dogmas of so-called science and the creeds of so called religion. The shell of conventionalism must first be cracked by the individuals and then by the body politic. The conventional laboratory professor may wave with a nonchalant air aside the thought of the invisible ether, but this should not deter the seeker for truth from learning that this physical material is divided by one of the obscure branches of science into four divisions or parts viz; life ether, light ether, chemical ether, and reflected ether.

An individual may be before us privately, or he may be a patient in custody before a board of insanity, and that justice may be rendered it is incumbent upon us as practitioners to be able to distinguish a well man from one who is diseased. In these days of occultism these very questions will be aired in the court. It is a self evident fact or is self demonstrable that a person may see things or even function on a higher plane of existence and may be either diseased, approaching a diseased state, or he may be an exceptionally well developed normal individuaal. There are men, I know, who in their modesty and meekness know more than either the writer or the reader and we commit a serious blunder when we presume to class them as neurotics, or insanes just because we cannot see an immediate way to possess a like knowledge.

After gaining the person's confidence we can frequently ascertain directly from him that he sees or has seen unusual forms or colored landscapes, and by drawing him out in detail can find out a very important thing and that is the direction in which the figures enter or seem to be travelling from his point of view. He can see them in the dark as well as in the light, and just as well hoodwinked as though eyes are open. If we find that the phenomena come to his view as though they approached from the right and were moving in the direction of the left, we can mark it down that he is seeing things, but that they are subjective and due to a negative condition of his system, with extreme fatigue, tobacco, drugs, or disease, as some if the aetiological factors. He is in a dangerous condition and may have "Elemental" Obession. He may not have noticed the direction of the presentments before his attention was called to the matter but he can readily recall. If the figures manifest themselves to the person as though they made their entry from left and were moving to the right similar to the hand motion of a clock the man is seeing positively showing that his health, (nerves) morals, and self training are

approaching self-mastership which is a condition above the average. The above information can be found in some of the current literature of the day and my experience corroborates every detail. tail.

THE AGE OF DISPLACERS.

By Frank P. Davis, M .D., Enid, Okla.

Caran D'Ache invented the "funny-paper" or comic supplement which has become the delight of the children and most adults as well. His idea was to tell a funny story in a succession of "funny" pictures, with the minimum of text. It was a new idea and it struck a popular chord. The advent of the comic supplement marked the passing of the humorous story. The cartoonist displaced the humorists of the by gone days. Today we depend upon our pencil artists to amuse us and the name of a popular cartoonist is looked for as eagerly as was the names of Bill Nye, Mark Twain, Geo. W. Peck and others who entertained with the humorous story a few years ago.

Henry M. Stanley explored Darkest Africa but a few years ago, and gave to the world an account of an unknown land. Today we see quotations from the East Africa and Uganda Journal, a scientific publication, and but recently the "Fourteenth South African Medical Congress" held its annual meeting. All this in a land that it seems but yesterday when the settlers were fighting lions and Zulus.

John Wanamaker opened his big store in Philadelphia on the 6th of May, 1876. It was the beginning of the "marked - in - plain - figures - one - price - to - all" store. Other merchants smiled and said it would fail. They could see a hundred reasons why it should fail, but Wanamaker saw only the reasons why it should succeed. Where are those other Philadelphia merchants today? Displaced and forgotten. The big store with the one-price-to-all is the rule today all over the land.

I might go on for pages reporting similar instances but it would only multiply evidence of the point that I am trying to force home to you. This is an age of displacers. You must displace the man ahead of you or the fellow that is coming on will soon push you off your base. If another man gets the place you want it is because he wanted it just a little bit more than you did. He was willing to plan and work to win. You can't hold your present position. You must push on. Crowd the man ahead.

A few days ago I was in a town that has four physicians. Two of them seem to be doing about three-fourths of the work. I knew that the other men had been there for many years and one of them was accounted an exceptionally competent physician. I asked a banker why this man had lost out. "Well," he said, "when the other doctor's bought automobiles Doc. Blank said his old ponies were good enough in the past and they were good enough now, but the people began calling the men who were up to the times, and Blank has been losing all the time, although every one thinks he is the best qualified man in town." Displaced and pushed off the base!

Be a displacer.

This is the month to collect your accounts.

One or two teaspoonfuls of camphor water, given every three or four hours, is a valuable stimulant in the failing heart of serious illness.

By the time secondary manifestations have appeared a positive Wassermann may be secured in nearly 100 per cent. of untreated cases.—Urologic Review.

ELECTRO THERAPEUTICS.

By H. L. Bennett, M. D., Lima, Ohio.

SHUNT REGULATOR.

Where the shunt regulator is used, as the case of all standard tubes of today, chemicals are incorporated in the regulator so that when they are heated by the passage of the sparks, gases will be thrown off which are not readily absorbed by the terminals, and the tube will lower in vacuum.

The shunt, chemical regulator, also has the advantage that a certain proportion of the gas that is thrown out may be re-absorbed by the chemical so that the tube is high at all times. The amount of chemical can be varied so as to make the regulator extremely sensitive and have long life, or it can be made to throw off extremely small amount of gas, making it less sensitive, and of course short-lived. Where the sensitive regulator is used, care must be taken not to put too heavy a spark into the regulator so that too much gas will be driven off.

PALLADIUM REGULATOR.

Palladium regulators depend upon the porosity of the metallic wall to hydrogen obtained through a gas flame when the palladium tube is heated to redness. Under certain conditions this may be advantageous, but to have the regulation reliable, and carried to the proper point, the tube should be run while being reduced, and no operator cares to be exposed to the rays for that length of time. It has the disadvantage, too, that the walls of the metal tube frequently do not contract so that gases will leak through them continually, destroying the vacuum.

AIR REGULATOR.

A great deal has been heard in the past on air being admitted into an X-ray tube for the purpose of regulation, by means of a mercury valve. We have always contended that this was not a satisfactory method. Our reasons are as follows: The mercury is continually giving off vapor. This vapor must of necessity get into the X-ray tube. Mercury vapor is not a good thing to have in an X-ray tube, and is sure to make it discolor and get cranky. Again, the mercury column frequently breaks, especially in shipping. The sealing plug becomes porous and admits more air and mercury vapor than it should admit, giving your tube the appearance of a leak. It is also said that in certain climates the mercury column will break of itself, even on the shelf, and the tube, of course, go down in vacuum. Again, of necessity, oxygen is admitted into the tube with the air. Tungsten has an extreme affinity for oxygen and immediately absorbs it to the detriment of the target. Cranky tubes can be looked for with air regulators. It is not infrequent to see a tube reduced to redness by the air regulator and immediately run up to full green in a very few minutes; under these conditions it is impossible to hold the vacuum at any given point.

In the May Recorder

A very interesting lot of material has been gathered for the May number of the Recorder. You will enjoy reading every article. A partial list follows.

"Why the Doctor?" Dr. F. F. Casseday, Portland, Ore.

"Report of a Case of Glycosuria of Pregnancy,' Dr. W. J. Allen, Beloit, Wis.

"Literary Men and Disease," Dr. Frank P. Davis, Enid, Okla.

"What Is Sleep?" Dr. W. Stuart Leech, Roseau, Minn.

"Will Dr. Friedmann Yet Triumph?" an interesting article written by a New York journalist.

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F. W. VAN KIRK, M. D., EDITOR
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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 APRIL, 1914 No. 4

FEE SPLITTING.

While the subject of Fee Splitting is one that has been discussed by the members of the medical profession for years it is one which is of interest at all times. particularly at the present time when we are having formed national and state societies which require as a condition of membership, the declaration of the physician or surgeon that he or she will not split fees in any way without the full knowledge of the patient. This practice of fee splitting has been more generally practiced by the surgeons than by the medical men. In most localities where this practice is prevalent it is the custom for the surgeon to give a certain per cent of the surgical fee to the man who refers the patient to him, without the consent of the patient.

The patient as a rule has every confidence in the family physician and we can easily see how a member of our profession may be tempted to send a patient to the operator who gives the largest per cent of his fee, when this particular operator may not be the best that is to be had to do the work.

There seems to be no good reason why the patient should not be told if the surgeon intends to have his fee cover both his services and the services of the family physician. By so doing all the work is above board and there is no suggestion of any under handed work being done by either party. Some of our states have already passed laws to the effect that it is unlawful to split fees in any way without the full knowledge and consent of the patient or the person representing the patient, and any convictions under these new laws is punhable by a fine or imprisonment and the taking away of the physician's license.

I believe that the solution of this problem lies with the family physician. When we charge what it is worth to make a diagnosis we will be satisfied with the fee we receive without looking for more from the surgeon. The man who makes the diagnosis of appendicitis and charges only a fee of an ordinary call, and then turns the case over to a surgeon who gets a large fee, is not doing justice to himself. When the general medical man becomes satisfied with his fees, which he will when he begins to charge what his work is worth, then he will be able to send his surgical work to the one he thinks most competent to do the same, without any thought of what per cent of the surgeon's fee he will receive.

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The most essential point in renal tuberculosis is, without a shadow of doubt, early diagnosis.

ABSTRACTS

GALL-STONES.

After mentioning the difficulties of detecting gall-stones with the Roentgen ray, G. E. Pfahler, Philadelphia (Journal A. M. A., April 25), describes the technic employed by him to meet them and sums up his paper in the following: "1. Gall-stones can be shown only when they are composed of a substance of greater or less density than the surrounding tissues. This will usually mean that they must contain some lime-salts, though this problem may be small. 2. My records show positive findings in 74 per cent., but I believe in general one cannot count on more than 50 per cent. being demonstrable. I believe that a negative diagnosis at present has no value. 3. It is possible that with the improved technic, when we find the gall-bladder small, and still find no stone, it may become of some value in negative diagnosis. 4. The estimation of the value of this method of diagnosis must be based only on the work of roentgenologists who have mastered a good technic, and who are thorough in their work. 6. Definite information will be obtained only by continued cooperation of the surgeon and the roentgenologist. 6. In the future I believe that we shall obtain valuable information concerning the liver and spleen by the roentgen method described."

TRANSFUSION.

B. F. McGrath, Rochester, Minn. (Journal A. M. A., April 25), points out the benefits derived from direct transfusion and its better physiologic support. There are two methods of direct transfusion, one in which a tube is used as an intermediary between the vessels and the donor and recipient and the other in which the intima of the vessels of both are directly connected. The latter is the most physiologic since the blood comes in contact with no foreign substance and is transmitted in its normal condition. He mentions a device of his own for the indirect method which has been experimentally effective. It is a modification of the Aveling apparatus, and consists of a rubber bulb drawn out into cannula tips. He also describes a forceps cannula for the direct method, consisting of two very short cannulas applied to one another by means of an ordinary forceps made suitably small and delicate for the work. The principle of cuffing the vessels as employed in the Soresi instrument is adopted. Qualities claimed in its favor are sureness in transmitting the blood in its normal condition and compartive ease of application. Vascular suture for transfusion has been used to a very limited extent, but cases are encountered in which the object is best accomplished by it. Because of the possible indication for this, any apparatus facilitating vascular suture and serving to simplify its technic is worth considering. He figures an apparatus for this purpose of suturing vessels either in transfusion or for other purposes. He says that, bearing in mind the possible difficulties, the operator attempting transfusion should be prepared to meet every obstacle that may present itself.

SPINAL-PUNCTURE NEEDLE.

I. Strauss, New York (Journal A. M. A., April 25) describes and illustrates a spinal-puncture needle designed to do away with the objections to the three-way cock commonly employed in such instruments. In other respects he says it is somewhat similar to the Kausch instrument. There is a manometer attachment, and the control of the fluid used or drawn for examination is made by adjusting a stylet.

CANCER OF THE SPLENIC FLEXURE

Two cases of the splenic flexure of the large intestine are reported by P.

E. Truesdale, Fall River, Mass. (Journal A. M. A., April 25). He remarks on the rarity of cancer in this location, its slow development and late metastases. The lymphatic glands of the region are so related that the conditions for the spread of carcinoma are not favorable, and the statistics of Madeling and Mayo would indicate that the results of operation are rather more favorable than in cases of cancer in other localities. In each of Truesdale's two cases a resection of the splenic flexure was made and in both cases relief was obtained, though in one case there is evidence of recurrence of cancer in the cervix uteri a year later. Other similar cases are mentioned, and he concludes that the cure of cancer in this region of the bowel by excision can be reasonably assured. Nevertheless the outcome mainly depends, as in the other cases of cancer, on an early diagnosis. The article is illustrated.

APPENDICITIS.

A case that is a little curious in its cause and accompaniments is reported by F. W. Hitchings and H. G. Sloan, Cleveland (Journal A. M. A., April 25). The patient, a young woman, had the year before taken a large quantity of bird-shot on recommendation of a friend, to cure what was called "Cuban itch." The eruption (probably scabies) disappeared, but the following lead-poisoning was almost fatal. Between two and three months before she was first seen by the reporters she took shot again for another kind of eruption on her face, taking altogether a large table spoonful of BB shot. The abdominal tenderness which had been troubling her became worse and a diagnosis of acute appendicitis was made, operation performed and the appendix, weighing 8.09 gm. and containing eight bird-shot was removed. About a week after the operation she passed over forty more and a roentgenogram later revealed no more in the abdomen, though there were still some symtoms of lead-poisoning, and the patient was referred back to the family physician. The author say that the case is of interest on account of the peculiar therapeutic use of shot, the severe lead-poisoning following and the excessive weight of the appendix and its content.

PLANTAR WARTS.

R. L. Sutton, Kansas City, Mo. (Journal A. M. A., April 25), says that while the subject of plantar warts has been carefully studied by several authors within recent years, the true nature of the condition is seldom recognized even today. For this reason he reports a case which is the most extensive he has ever seen and which he has studied microscopically. These cases are notoriously resistant to treatment, and recurrence frequently takes place after excision. Of all the methods tried he gives first place to Pusey's carbon dioxid snow, fulguration second, and Roentgen treatment third. Before the snow or electric current is applied, the epidermal lids of the little tumors should be removed by a 10 per cent salicylic plaster. Roentgen treatment is especially applicable when there are numerous lesions, which frequently disappear as if by magic. In the case reported all three methods were used and the cure was apparently complete in three weeks.

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The exercising of more than ordinary care in choosing an anodyne, particularly in the case of women and children, is quite essential. This is all the more so when it is remembered what distressing after-effects follow the use of some anodynes.

The fact that careful practitioners are partial to Papine (Battle) and continue to use it year after year indicates its superior features. Papine (Battle) affords a maximum of anodyne properties with a minimum of evil effects.

THE DOCTOR'S LIBRARY

MERCK'S ANNUAL REPORT Of Recent Advances in Pharmaceutical Chemistry and Therapeutics. Vol. XXVI. pp. 524. paper. E. Merck. Darmstadt. 1912. New York. Merck & Co.

Merck's Report has been the standard authority on the advancement being made in pharmaceutical chemistry and therapeutics for many years, and the twenty-sixth volume now before us is in many ways the best that we have seen. It is not only larger in number of pages, but it contains some articles of exceptionally high merit. The first article is a most instructive discussion on Lecithin, in which is brought out a good many not generally known uses for this valuable remedy. The volume also contains a timely article by Professor R. Heinz of the Pharmacological Institute of the University of Erlangen, on the "Standardization of Digitalis Preparations."

The edition of this volume is limited and is distributed principally among teachers of materia medica and therapeutics, and medical and therapeutical libraries. Generally, however, a few copies of each remain after this special distribution, and physicians and pharmacists who make early application may secure a copy by remitting the cost of forwarding, which is fifteen cents in stamps. No charge is made for the book itself.

STERILITY IN THE MALE AND FEMALE, and its treatment. By Max Huhner, M. D. Chief Genito-Urinary Dept. Harlem Hospital, New York. Etc. New York, Rebman & Co. 1913. Pp. 262. $2.00.

This is a very useful and interesting work upon the subject of sterility. It contains an original method of studying the progress of the spermatozoa in the tubes; a method of treating sterility in the male and female that is based upon scientific investigation, and an extensive consideration of the procedure to establish the proof of sterility. The author holds that the fact that live spermatozoa may appear in the semen does not by any means absolve the husband from being the cause of steril wedlock. This is a new theory but the author has handled it so well and backed up his position by many clinical cases until we are forced to recognize his position.

The book is bound in the beautiful style of the Rebman publications, and the reference to other writers appears in italic—a point that I especially admire.

We recommend this as the last word on the subject of Sterility, and believe that every practitioner will find it of much value.

DIAGNOSIS OF THE MALIGNANT TUMORS OF THE ABDOMINAL VISCERA. By Prof. Rudolph Schmidt, Professor of Medicine in the University of Innsbruck. Authorized English Version, by Joseph Burke, Sc. D., M. D. of the Buffalo Hospital. New York, Rebman & Co. 1914. Cloth, $4.00.

The diagnosis of malignant new growths is a matter of great importance and one that the general practitioner should be qualified to make, as upon his decision at an early stage of the disease depends the means of saving life. Failure to detect the disease early may mean the death sentence of the patient when the true condition is discovered too late to promise help. Prof. Schmidt has had abundant opportunity to invesigate these conditions and has availed himself of not only the clinical findings but the counter-findings of the surgeon and an-

atomist. The book contains a large number of case histories that will prove of interest in studying the text of specific diseases. Dr. Burke is eminently qualified by study and experience to give to English readers a clear and complete rendering of Prof. Schmidt's work.

♣ ♣ ♣

HYPNOSIS AND SUGGESTION. Their Nature, Action, Importance and Position amongst Therapeutic Agents. By W. Hilger, M. D.., Translated by R. W. Felkin, M. D., F. R. S. E With an introduction by Dr. Van Rentergham Translated by A. Newbold, New York, Rebman & Co. Cloth, $2.50.

The beauty of this book lies in the fact that the author impresses the reader with his sincerity and practical knowledge of his subject. He gives new and practical information and does not weary his reader by the repetition of facts which every one is aware of, or of well-known doctrines. He knows how to communicate in an interesting manner the essentials of the physical curative methods. It is gotten up in the well known style that has made the Rebmen publications renowned, and we can cheerfully commend it to our readers.

♣ ♣ ♣

SEX: ITS ORIGIN AND DETERMINATION. By Thomas E. Reed, M. D. pp. 314. Cloth. $3.00. New York, Rebman Co. 1914.

Dr. Reed Reviews the many theories that have been advanced in the past on the control of sex, and this is a most complete and exhaustive review of the subject that we have ever seen. He then gives his own theory and advances some very strong argument in support of the same. Briefly summarized, the book contains:

1. A general review of the methods of reproduction in the animal kingdom. 2. A review of the various theories. 3. A demonstration of the primative hermaphroditism of all animal organisms and the latent bisexuality of even the higher forms. 4. An inquiry into the nature of twin births. 5. A demonstration of the bisexual rhymth in the germ plasm. 6. A study of the influence of the lunar month and lunar day in relation to the phenomena of menstruation and other conditions.

The work is very interesting and presents much that will stimulate thought on the subject of the controlling of sex in generation. Dr. Reed has given forty years of a very active life to the study of this subject and is qualified to speak with authority.

We recommend the book to all medical men and students of biology, feeling sure that they will find much that is worth their attention in its pages.

♣ ♣ ♣

OPHTHALMOSCOPIC DIAGNOSIS. By Dr. C. Adam, Assistant at the Kgl. Univ.-Augenklink, Berlin. Translated by Matthias Lanckton Foster, M.D., Ophthalmic Surgeon to the New Rochelle Hospital; Member of the American Ophthalmological Society, etc. Octavo of 229 pages, with 86 Colored Pictures on 48 Plates and 18 Illustrations in the Text. New York, 141-145 West 36th St. Rebman Company.

This splendid work is dedicated to the memory of Julius von Michel and the author has followed out his idea in bringing into bold relief the relations that exist between diseases of the eye and those of the general organism. The ophthalmoscopic appearance is largely taken as a basis for classification of the various ophthalmic affections, and while the book is well entitled, in view of the number and excellence of its illustrations, to be designated as an atlas, the accompanying

text fully presents the etiologic similarities and relationships between the various conditions pictured and makes of the work a practical manual of diagnosis. Special attention is given to the needs of the general practitioner, neurologist and syphilogist, various phases of albuminuric retinitis, diabetic retinitis, choked disc, luetic and tuberculosis chorioretinitis, etc., being ampyly considered. In the index are given not only the individual ophthalmoscopic symptoms, but also the general diseases of which they constitute the ocular signs. In a preliminary section the technique of ophthalmoscopy is explained. The colored illustrations are all splendid, and their number, 86, affords evidence of the completeness with which, along with their explanatory legends, they cover the field.

Every physician, whether in general or special practice, will find this book a most valuable addition to the library.

♣ ♣ ♣

WAYSIDE EXPERIENCES. A Collection of Plain Tales as Heard Along the Road. By C. Elton Blanchard, M. D. Neward, N. J. Physicians' Drug News Co., 1913. Cloth. $1.25.

This is a collection of interesting stories, "bits of real life gathered from the writer's diversified experiences," the trend of which may be gathered from the titles, "Dr. Jones' Farm for Down and Outs;" "The Price He Paid;" "The Confession of a Second Wife;" "Dr Xury's Marvelous Cure; "Mrs. King's Boarding House;" "Sowing and Reaping Wild Oats;" "Bessie Tompkins' Test;" "The Biophoretic Healer;" "Susan Hillis—Theoretical Mother;" "Joel Rigby's Monument," and "How and Why I Failed as a Wife." All written in plain language in which the author has seen fit to call a spade by its right name. The book is interesting and well worth the price.

♣ ♣ ♣

PREVENTION OF NEPHRITIS.

In scarlet fever, diphtheria, typhoid and other infectious diseases, it is a commonplace of practice to watch the urine and to take every precaution against nephritis. The discovery of the peculiar property of the chemical combination, $C_6H_{12}N_4$, to give off formaldehyde and other obscure but effective antiseptic agents, at body temperature only, was one of the most epoch-making in the history of therapeutics. Cystogen, a refined preparation of the aforementioned chemical, has been extensively prescribed for more than fifteen years and has been preferred to other products by many physicians on account of its uniformity of action and non-irritating property. More recently, Cystogen-Lithia ((cystogen, 3 grs. and lithium tartrate, 3 grs.) in the form of an effervescent tablet has been given preference; one of these tablets dissolvd in a glass of water, makes at once a proper dose and menstrum, to be taken at meal times or between meals, as the prescriber may direct.

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DOCTOR.—Here's a book that will put $$ in your pocket. Send us 75c and get a copy of "Unnoticed Hindrance to Successful Therapy." Western Printing & Litho. Co., Racine, Wis.

Wisconsin Medical Recorder

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DILATATION OF THE ANAL SPINCTERS

By CHARLES J. DRUECK, M. D.
Chicago, Ill.

When preparing this paper I had misgivings that I was taking up my readers' time with a very trivial procedure, but in looking through the textbooks on surgery and even those on rectal diseases I find very brief or no mention at all of the subject, and many well informed general practitioners are sometimes uncertain as to the best method of procedure.

Divulsion of the sphincters, literally interpreted, means to tear or rend asunder, and that is what usually occurs when the patient is anesthetized and the muscle stretched by introducing the thumbs through the anus and dragging them sideways until they touch the ischial tuberosities. Such brutal traumatism is never necessary in modern surgery. What we really desire is to overcome the natural or exaggerated contractility of the sphincter that we may open the anus sufficiently for examination or operation. If this can be accomplished without a general anesthetic it brings within the scope of office or ambulant treatment many cases which were formerly attended only in the hospital. It is my object to outline here a plain method of treatment which has yielded thoroughly satisfactory results in selected cases, obviating the dangers of chloroform without adding any disadvantages or complications. As this method is applicable to both examination and treatment I offer it as having a well defined field.

Stretching the sphincters forms an important step in the treatment of most rectal diseases because it produces certain anatomical and physicological results. Stetching the muscle also stretches the fine nerve filaments in its substance and produces a temporary paralysis of these fine twigs. This action is the same as that produced when stretching the sciatic nerve. Localized inflammatory products and adhesions are broken up and as a result sphincteric spasm, pruritis and hypersensitiveness are mehcanically relieved. In many instances pent up secretions are thus provided free drainage. If this traumatism is limited the nerve branches in and about sphincter the nerve regenerates soon and the paralysis is only temporary. If, however, the larger nerve trunks out toward the ischial fossa are injured regeneration is slower and it is possible for cicatrization and atrophy to occur in the muscle before new nerve is built up and the paralysis may remain more or less permanently.

Every thorough examination of the rectum includes a digital exploration and the introduction of the finger puts the sprincters on sufficient tension to demonstrates many important things. The finger thoroughly annointed with vaseline or olive oil (not glycerin be-

cause that stimulates the bowel to evacuation) is gently inserted with a boring motion, remembering the direction of the rectum; forward toward the pubes until the sphincters are passed and then backward toward the sacrum. As soon as the finger touches the sphincter the latter contracts spasmodically. If, however, the finger is held firmly against the anus for a minute. the muscle relaxes and in many instances the finger may proceed without difficulty. The sphincter is now slightly stretched and the degree of contraction, or bite, informs us of the tone or irritability of the muscle. This digital stretching is always essential before the specular examination in every new case, because it demonstrates not only the condition of the muscle itself but also determines many diseased conditions and thereby per mits the operator to subsequently dilate sphincter instrumentally without causing pain in many instances. In new born infants stretching the sphincter with the obstetrician's little finger is one of the most powerful respiratory stimulants, and in older children it will be noted that the introduction of the enema tip is often sufficient stimulus to bring on defecation without the use of liquids.

If in a given case the finger has been introduced and the sphincter and the rectum found normally patulous, the anoscope or a speculum may be slowly introduced without causing pain and the lower rectum dilated enough for examination or treatment. If, however, certain diseased conditions exist which have caused an irritable and hypersensitive sphincter, the muscles will be found to bite the finger abnormally and the anus needs preparation. To temporarily overcome these conditions we have recourse to local anesthesia a condition which may be produced by a number of methods. Cocaine in weak solution may be used with perfect safety so long as the total amount of the drug used at any one sitting is less than one-half grian.

By placing the hands on either buttock, the finger tips resting close to the anus, the external sphincter may be gradually drawn open (everted) until one-half inch of mucous membrane rolls out. This surface is then sprayed with a 4 per cent cocaine solution to which is added one-half of 1 per cent to 1 in 1,000 adrenalin solution. The buttock are now released and the anal canal treated by injecting 10 to 20 minims of the same solution from a short nozzled piston syringe. The patient is then placed in a semi-recumbent position for about five minutes, until the full effect of the drug may be obtained.

The adrenalin solution in the mixture prolongs the anesthetic effect, limits the rapidity of absorption of the cocaine, and lessens the venous congestion which otherwise sometimes produces an annoying tenesmus for several hours following this procedure. It may be well to add that the solution is always warmed to nearly the body heat before it is used because warm solutions are more efficient than cold, and also that the use of normal salt solution instead of plain water increases the absorbability of the cocaine.

After waiting five minutes the surface is fully anesthetized but the muscle itself is not interfered with and we are now ready to begin the instrumental dilatation just as well as we would in a normal unirritated anal canal.

The dilator is warmed to about the body heat, thoroughly annointed with any lubricant except glycerine and gently pressed against the anus and inserted with a boring motion. The sphincter can usually be dilated up to two inches in diameter in about five minutes. The pressure on the cali-

brator must be slight but steady. Any undue haste only excites spasm of the sphincter and retards our progress.

If in the case at hand the sphincters are very irritable it may be advisable at the first treatment to distend the fibers to only one inch, and at each subsequent visit to increase the distention. The object being to speedily stretch the muscle to a diameter considerably larger than is ever produced by a fecal mass and therefore, when the bowels are evacuated, the distention is relatively slight. Having dilated the anus as much as desired the calibrator should now be retained in situ for ten or fifteen minutes until the sphincteric grasp is released. When the sphincter has been thoroughly dilated the calibrator may be slowly withdrawn. The last half inch of the instrument being withdrawn very slowly and crowded against the anterior quadrent of the sphincter. Firm pressure against the posterior wall of the anus with the examiner's free hand also prevents sudden spasm.

It occasionally happens that even with the use of cocaine a thorough dilatation at the first sitting is very painful. If the patient complains of pain the distention should be diminished to a point where it is fairly comfortable and the physician must content himself with a partial dilatation at the first treatment. The treatments in such a case should be repeated each day, gradually increasing the dilatation until the muscle is relaxed sufficiently for all purposes.

With the advent of mechanical vibration has come another method of producing local anesthesia in certain instances. A Vibratode (which is a copy of the calibrator)) is made to vibrate or oscillate upwards of 6,000 times per minute and these tremors are transmitted to the nerves in the surrounding soft tissues. In selected cases it gives very satisfactory results but it must not be used in inflammatory cases.

Case. 1. Mr. H. S. Campbell complained of sharp, cutting pain in the rectum following defecation. Itching at the anus and bowels constipated. Examination showed the anus to be tightly contracted. Digital exploration was too painful to be satisfactory to either patient or myself. The anus was sprayed and the cocaine injected as I have outlined above, and after waiting five minutes I completed my examination painlessly and satisfactorily.

When disease exists above the sphincters this same method may be followed, and when the calibator is withdrawn the anoscope or speculum may be intoduced easily and without exciting spasm. The anal canal or rectum may be examined or treated just as if the patient were anesthetized, as plenty of room is obtained for treatment of diseases of the lower inch and one-half of the bowel. In the treatment of internal hemorrhoids, ulcers, villous tumors or other conditions requiring minor operations or treatment upon the rectum the parts can usually be distended sufficiently without a general anesthetic, only it msut be peformed slowly and patiently.

In the early part of this paper I called your attention to the importance of digital examination preceding the instrumental dilatation, because it furnishes the examiner precise information regarding the tone of contractile power of the sphincter. If you can introduce your finger into the patient's rectum easily and without feeling the bite or spasm of the sphincter, be very chary about introducing a speculum and dilating the anal canal because what little contractile power is present may be easily dissipated and a permanent partial or complete paralysis result. (Example.)

Case 2. Mrs. B., at the age of 26

years, was delivered instrumentally of a large boy. The perineum was ruptured, but was promptly repaired. The patient recovered and enjoyed good health, having complete control of the bowels. Four years later she was operated upon for hemorrhoids and since that operation has had complete paralysis. The surgeon who operated informed me that he was positive no undue traumatism was used. I mention this case to show that where the nerve supply of the sphincter has been previously injured an instrumental dilatation may be fatal to good results and a previous digital examination is indispensable.

In operating within the rectum and particularly when it may be necessary to drag upon the parts, the nerve must be anesthetized as far back along its trunk as the traction will be appreciated because a nerve may be perfectly numb at the point at which it is cut or clamped but very much alive one-half inch further on, and if this sensitive part is dragged when examining it will be appreciated by the patient as being at the nerve end because the same fibers are involved. Therefore, if in dilating the sphincter it is necessary to move or stretch the deeper nerves, especially if exudation or inflamtion extends outside of his muscle, it will be necessary to thoroughly cocainize the nerves outside of this area. In such cases infiltration of the deeper nerves is necessary.

Having discoursed at some length upon the advantages of dilatation, and hinted at operating upon the anus under local anesthesis, allow me to remind you that this method has its limitations. While cocaine or vibration may relieve the sensations of pain, they do not remove the fear or terror of being operated upon, and a highly nervous or excited patient may not be able to keep quiet or calm while he is conscious and realizes that the surgeon is at work. In a number of such cases I have completely failed to obtain any reasonable benefit from cocaine. In selected cases, however, I believe this method brings within the field of office work many patients who would otherwise be confined to their beds for several days or weeks, and also those who object to an anesthetic or in whom its administration would be inadvisable and who continue for years with very painful and annoying ailments which might be promptly and easily relieved by their doctor.

438 East Forty-sixth Street.

The non-surgical treatment of hot abscesses.—Cocco (Wien. med. Wochenschr., p. 2231, 1913.) Certain body fluids have a marked anti-fermentative power. Among these, the most readily obtained the fluids of ascites, hydrocele and pleural transudate. These fluids if injected into a pus cavity will always, in the writer's experience, lead to prompt recovery. The cosmetic result is far superior to that following incision. His technique is as follows:

1. The pus is aspirated by means of a syringe.
2. Through the same needle, the pus cavity is washed out with the ascitic or other similar fluid.
3. The cavity is filled with the fluid and the needle withdrawn.

The following question has been asked by one of our subscribers, and information from those interested can be made either by letters sent to the writer or to this journal, which will be published for the benefit of all readers.

Question: "I would like to learn what success anyone is having with the Betz Electric Sitz Bath, and also Hopkins Hot Air Ear Apparatus in treating diseases of the ear, such as deafness, and so on." U. G. Vance, M. D., La Fontaine, Indiana.

LITERARY MEN AND DISEASES

FRANK P. DAVIS, M. D.
Enid, Okla.

Have you ever wondered how a great novelist would describe his illness, suffering and pain? Some light may be thrown on the subject by a study of the letters and books of some of the leading writers.

Thus we find in a series of letters written by the English novelist, Wilkie Collins, to his American friend, Paul Alexander Hayne ,recently published in The Bookman, a good description of the suffering which he experienced from the gout and angina pectoris.

The first reference to his health appears in a postscript to a letter dated May 3, 1884, in which he says: "My health varies a great deal. Gout and work and age—(I was sixty years old in January last—try to persuade me to lay down my pen after each new book. But, well or ill, I go on." In a letter dated January 28, 1885, Collins says, in speaking of how an oracle would state his condition: "Look here, Paul Alexander Hayne! The least you say about your friend, Wilkie Collins, the better. His stars, for the past three months, have given him up as a bad job. He went to sea with the ridiculous idea (at his age) of restoring his youth. He left the ship with the anial spirits of five and twenty, and the splendid complexion of the days when he was a truly beautiful baby—he returned to London—and the next morning, when he approached the looking glass to brush his hair and beard, he perceived a red streak in his left eye. In three days more his eye was the color of a cooked lobster. The Gout-fiend had got him. The Gout-fiend bored holes in his eye with a red-hot needle. Calomel and Colchicum knocked him down and said (through the medium of the doctor), 'Wilkie, it's all for your good!' Laudanum—divine laudanum— was his only friend. He got better—then worse again—then better—worse once more. If you could see him now, writing to you on a foggy London evening, you would find his eye restored at last to its right color and to its sight, but left so weak that he is obliged to protect it from artificial light (only candlelight) with a patch. There is the sad story of your friend W. C.—and that is why he has not written to you long ago." After writing this letter he seems to have had another back-set, and to have experienced new terrors in neuralgic pains, as under date of April 28, 1885, we find him writing to Hayne that: "We have all been ailing in England during the last two months, suffering under a pestilent east wind—and we are getting better in the milder weather that has come now. I have been following the general example—and suffering (what is new to me) excruciating neuralgic pains. The warm sun and the remedies have helped me to get better—and I now confront my unanswered letters and my unfulfilled literary engagements." All through his letters we notice a cheerfulness and resignation that is remarkable considering the suffering that he endured. It is also eviden' that he held the changes in the weather accountable not only for his suffering but to relief as well, giving the remedies prescribed by his doctor only secondary place. Under date of Sunday, Dec. 27, 1885, we find this postsript: "In the forefront, the Gout has given up trying to kill me—and fierce neuralgice pains (really 'angina,' but we keep that a secret, in fear of newspaper reports of my death) have succeeded the gout. My doctor and I, and 'Arsenic,' and 'Amyl,' make a good fight for it—and, in spite of the weather, I get better." During this time he was writing "The Evil

Genius,'' and he remarks that a number of this serial must be written every week, ''whether I am well or ill—with the publishers and translators waiting for it.'' With all his suffering he continued to write, turning out a great number of books—and some of them are very good books. ''The Evil Genius'' was written at a time when he was suffering extreme pain, and in the years when most men would retire and give up the fight rather to work on day in and day out with little ease from his suffering other than from the deadening effect of the ''divine laudanum.'' Collins died in 1889.

Thackeray, another popular English Novelist, in a letter written to the wife of a man named Brookfield, with whom he had become infatuated, took occasion to use some strong language against all doctors as being incompetents. This was in 1848. Later he became ill and called Dr. John Elliotson. On his recovery we find his opinion of doctors took a radical change, if we are to judge from the dedication of his book, ''Pendennis.'' The book is dedicated to Dr. Elliotson as follows:

''My Dear Doctor: Thirteen months ago, when it seemed likely that this story had come to a close, a kind friend brought you to my bedside, whence, in all probability, I never should have risen but for your constant watchfulness and skill. I like to recall your great goodness and kindness (as well as many acts of others, showing quite a surprising friendship and sympathy) at that time, when kindness and friendship were most needed and welcome.

''And as you would take no other fee but thanks, let me record them here in behalf of me and mine, and subscribe myself, yours most sincerely and gratefully, W. M. Thackeray.''

This is a really beautiful tribute to the doctor. However, when I read in one of the letters written in 1853 to Mrs. Brookfield while he was in Philadelphia on his lecture tour, in which he speaks so deprecatingly of our people but naively says that he is making money rather easily and that, ''That second course (of lectures) will enable me to provide for the children and their mother finally and satisfactorily, and my mind will be easier after that,'' I cannot help thinking that Dr. Elliotson was not a good business man. I have often noticed that so long as a doctor will work for nothing some very prosperous people will sometimes speak a good word for him. I believe had I been the doctor I would rather have had the fee than the dedication note in the book. It isn't a very good book anyway.

I will close by quoting from the poems of Henry Kirke White, a poet of great promise, who died of tuberculosis at the age of twenty-one, after completing his first year at Cambridge university and taking first honors at the great college examination. The extracts are from an article published in the ''Critic and Guide'' a few years ago. White wrote a sonnet to consumption, the first four lines of which ran this:

''Gently, most gently, on thy victim's head,
Consumption, lay thy hand—let me decay
Like the expiring lamp, unseen, away,
And softly go to slumber with the dead.''.

Some years before this he wrote a fragment of a drama in verse in which Consumption and Melancholy were the theme. ''Critic and Guide'' says it believes this ''to be the most gruesome bit of imagery in the language.'' He seemed to have a strong desire to write of the disease that finally called him from life at an early age. The poem that I want to present is one written while he was on his death bed, and that was no doubt inspired by the disease—

consumption—from which he suffered. He gave the lines the title "Prospect of Death."

"On my bed, in wakeful restlessness
I turn me wearisome; while all around,
All, all, save me, sink into forgetfulness;
I only wake to watch the sickly taper
Which lights me to my tomb.—Yes('tis the hand
Of Death I feel press heavy on my vitals,
Slow sapping the warm current of existance.
My moments now are few—the sand of life
Ebbs fastly to its finish. Yet a little,
And the last fleeting particle will fall,
Silent, unseen, unnoticed, unlamented.
Come, then, sad Thought, and let us meditate
While meditate we may.

"I hope I should not leave
The earth without a vestage: Fate decrees
It shall be otherwise, and I submit.
Henceforth, O world, no more of thy desires!
No more of Hope! the wanton vagrant Hope;
I abjure all. Now other cares engross me,
And my tired soul, with emulative haste,
Looks to its God, and preens its wings to Heaven."

If any of our readers can refer me to other writers who have written concerning their sufferings I will be pleased to be advised of the work in which they may be found. There is a great deal of this literature and it is interesting as a relaxation from the more profound technical subjects usually found in our medical publications.

WILL DR. FRIEDMANN YET TRIUMPH?

(The following article was written by a New York journalist who recently returned from Berlin, where he studied the Friedmann treatment at a close angle. He was dispatched there by a New York publication and his report will be incorporated in an article to be issued in April. The editor of the Wisconsin Medical Recorder prints it not as an expression of the Recorder's views, but as interesting and timely document.—Editor's Note.)

The arrival of Dr. Friedrich Franz Friedmann in America last February has probably caused more discussion pro and con in medical circles than any other single event in a decade. Dr. Friedmann, whose coming was heralded by the press of the country in a most unusual way, claimed to have discovered, after fourteen years of research, a cure for consumption.

He had previously made his announcement of a cure before the Berlin Medical society in November, 1912. He described his treatment as consisting of injections of living avirulent tubercle baccilli. A number of scientists, whose opinions were regarded as carrying weight, said at this meeting that they supported in greater or less degree Friedmann's contentions that curative effects were derived from this method of treatment.

On theoretical grounds, the treatment of tuberculosis by living avirulent tubercle bacilli, if such could be secured, had been regarded as the most hopeful line along which work could be carried, and for this reason open minded physicians in America were attracted to the subject and unusual publicity ensued. It had aroused the whole country.

Physicians knew that Dr. Friedmann had some reputation as a scientist. In 1900 the medical faculty of the University of Berlin offered a prize, which was open to all the physicians of the world, for evidence how children developed pulmonary tuberculosis or the place of infection. Dr. Friedmann won this prize and proved that children developed pulmonary tuberculosis beginning chiefly in the tonsils. In the same year he published a study showing for the first time that new born animals sometimes, but rarely, inherit the disease.

He had also written for the encyclopedia of Microscopy and Bacteriology, edited by Prof. Ehrlich of Salvarsan fame, an article on "Tubrecle Baccillus."

These achievements of course made his arrival in America an interesting medical event. Dr. Friedmann told the writer personally in Berlin recently that he had been amazed at the reception he received. His quarters at the Waldorf in New York were simply overrun. The writer also saw Dr. Friedmann at the Waldorf and he appeared more like a young school girl with stage fright than a cool, calculating man of science. His bewilderment certainly was not conducive to creating a favorable impression among his professional brethren.

A man who was very close to him said at the time: "Dr. Friedmann is simply unstrung by the crush of visitors. Always retiring and unable to speak English fluently, he is positively bewildered.

"I have urged him to go away for several days until he can pull himself together. I do not like the crowd he has collected around him; they remind me of the old P. T. Barnum type of press agents."

Subsequent events showed that Friedmann had picked his counsellors unwisely. The public began to doubt his claims. There were at first veiled hints and finally downright criticism which resulted in a campaign of invective the like of which has not been known. Dr. Friedmann tried to stem the tide, but it was in vain. He was criticized on every hand and the statement was made that he was not even skilled in injecting the vaccine into his patients.

He finally left the country with the press and public practically jeering him. It was said in his defense by those who knew him that he was not resentful. "Others have knocked," he said, "and the door has been barred."

Dr. Friedmann is of course right in his statement that "others have knocked and the door has been barred.' All therapeutic substances have had their peculiar history and it is a striking fact that the final estimate of their value of worthlessness has often been in inverse ratio to the opposition they first encountered or the early welcome accorded them at the hands of physicians. It is painful to realize that our great medical specifics, quinine and mercury, were violently attacked for many years by official science; that general and local anaesthesia, antisepsis, Jenner's smallpox vaccine and, countless other discoveries met with all possible opposition from specialists and that several decades elapsed before these various processes could be put to beneficial use.

The most distinguished physician of his time the great Suydenham waged a terrible fight against quinine; and yet we know how dark the outlook would be for Europeans in the Colonies but for that drug.

Fourteen years after Lister announced his method of antiseptis which was to give surgery a new lease of life, the celebrated Billroth wrote that he couldn't understand how a man like Von Volkman could be deceived by the

"Lister swindle." Semmelweiss and Robert Meyer encountered many obstacles in their work.

However in face of the opposition to other discoveries there was some reason for the public being skeptical and also the physicians, because there have been in the past fifteen years more than 20 tuberculosis "cures" exposed and their manufacturers driven out of business. The American Medical Association has issued a 100 page book describing the different kind of "fake cures" for tuberculosis that have been foisted on the market.

Dr. Friedmann was accused of having perpetrated a big press agent swindle and he accordingly got the sworn affidavit of W. G. Shephard, a well known and trained European correspondent. Mr. Shephard states in his affidavit that he has investigated the treatment, interviewed patients, took scientists with him and as a result sent the first news of the tuberculosis cure discovery to America. He said that Dr. Friedmann was even reluctant in talking about his treatment as he wanted to work along ethical lines.

When Dr. Friedmann went back to Berlin from America he quietly went to work at his Institute for Tuberculosis and Scrofula. America has dropped him and the Germans are still skeptical. He had almost been forgotten when cable dispatches began to appear in Amercian newspapers regarding his demonstrations in the Charity Hospitals in Berlin culminating in the announcement by Prof. Kraus, head of the Charite Hospitals, and professor of surgery in the University of Berlin that he had found "amazing results from the Friedmann vaccine in surgical cases and that its effect was marked in pulmonary cases."

To the astonishment of the medical world in which Prof. Kruas had such a high standing he further stated: "It is our duty thoroughly to investigate all these questions, especially now that every practitioner can join in the investigation. I believe that the demonstrations at the Charite will cause the profession to investigate thoroughly and use the Friedmann vaccine, following the indications and technique developed by him."

It was at this point that cures were being claimed in America by patients who had been treated by Friedmann. A Brooklyn newspaper on Nov. 20 carried a first page story to the effect that Robert Moran, a six year old boy, of 145 Jefferson avenue, Brooklyn, had been transformed from a seemingly hopeless invalid on crutches to a healthy vigorous youngster. Another Brooklyn case also excited widespread comment. The little daughter Marie, aged 7, of a Brooklyn teamster living at 50 Noll street, took the treatment and the father stated that a careful examination had been made and the child was pronounced by physicians free from the disease.

Nine other cases, three under observation by the government, have made sworn statements of cures in New York state alone.

But it is admitted that the greatest impetus has been given the disease in Germany. The writer has sounded the scientists of the highset standing and they have almost reversed their opinion of Friedmann. Many are proclaiming him favorably publicly and the newspapers of Berlin are praising him and apologizing for their earlier attitude.

Dr. Friedmann has been invited to give demonstrations in Budapest, Vienna, Stockholm, London and Paris. In three of these cities he was received by the high dignitaries of the municipality and given every kind of hearty welcome.

Privy Health Counsellor Dr. Konrad Kuster, who is a favorite army physician and surgeon and who has received the Decoration with Swords and the

Iron Cross, has stated in a prominent medical journal: "By observation of a large number of cases treated by the Friedmann vaccine during the last two or three years I am convinced that Friedmann's vaccine is absolutely harmless and that it produces satisfactory results in the various tubercular diseases as for instance pulmonary, joint and bone tuberculosis of both children and adults.

Prof. Dr. Erich Mueller, chief of the staff of the Municipal Orphan Asylum of Berlin, has come out in endorsement of the remedy.

One of the reasons for the change in sentiment toward the remedy is the endorsement of Prof. Carl Ludwig Schleich. He is the inventor of local anaesthetical infiltration, which saves 70 per cent of all surgical patients from the danger of narcotization. He has been decorated from the Emperor with the Red Eagle and received from the Royal Bavarian University of Wurzburg the Reinecker Medal for the best medical achievement in the past ten years. He has written more than forty pamphlets on surgical and medical subjects and is the author of three text books. His endorsement has done much to bring Friedmann out of the grave in which he was to all appearances so hastily buried. Said he: "I am thoroughly convinced that this treatment, if scientifically applied and understood, will have to be counted under the most prominent works of medical science. Had Robert Koch only 10 per cent of Friedmann's results he would have been considered the benefactor of the human race in the fight against tuberculosis. I have observed 1,000 cases of all sorts of tuberculosis. I am convinced that Dr. Friedmann's remedy is the first and only real cure for tuberculosis."

It has been the general opinion that the American Medical Association has officially condemned the Friedmann treatment. As the A. M. A. yields a mighty influence in the medical world this had a powerful effect. As a matter of fact the A. M. A. has not condemned the remedy officially. Their attitude has been one of cautioning the people to wait until the government makes its final report and not to believe that it is a cure until its efficiency has been positively established by medical men of pronounced standing. In other words the American Medical Association is waiting itself for the verdict.

The government has not made its final report. The last report that the government made was on May 16, 1913. There are twelve patients still under treatment and observation and it is reported that all of them have shown improvement and one claims to have been cured. The government in its last report said: "We must not lose sight of the possible therapeutic value of this preparation, and on the other hand it is necessary to guard against too great an optimism in respect to its merits."

To sum up the whole Friedmann status the attitude has been one of perhaps too great haste, but if Friedmann has really discovered a cure for a percentage of cases it will not be difficult to undue whatever seeming harm has been done. It will not be like "unscrambling an egg."

The latest preliminary report of the Friedmann treatment tests in the United States have been favorable to Friedmann. A very careful report on 120 cases of tuberculosis treated with the vaccine has been issued by Dr. Barnes, superintendent of the Rhode Island State Sanatorium at Wallum Lake. The cases were treated at the instance of Gov. Pothe and Dr. William L Harris of the Rhode Island Board of Health, in view of the results reported from 1,012 cases under the care of the Berlin physicians, Mueller, Karfunkel,

Schleich, Goldberg and Friedmann.

The report favors three points made by Dr. Friedmann. First, that the live baccilli that comprises the vaccine are not either in form or in effect of the human type of tuberculosis—they are somewhat shorter than the average human tubercle bacillus and rarely beaded; moreover, the small round cream white glistening colonies stain differently and are not acid fast to the same degree as human tubercule bacilli.

Secondly, they are non-poisonous. They do not infect guinea pigs; they are a strain which is harmless even to turtles, their original host. As guinea pigs are more sensitive to tuberculosis infection than any other known animal, it would be assumed that the live baccili discovered by Friedmann are harmless to human beings.

In the third place the one patient in the Wallum Lake experiment who had joint tuberculosis "showed striking improvement." This in Dr. Barnes' opinion makes it desirable that similar patients who have received this vaccine should be observed and reported on by those who have had orthopaedic experience. This sums up the favorable aspects of the Friedmann report.

Dr. Friedmann's claims of protective vaccination for the turtle vaccine is by far the most important of his claims. Should the Friedmann vaccine prove of curative qualities, there will be one lesson to learn and that is a need by the medical profession of greater tolerance when new ideas are presented, but in defense of the medical profession that it is no worse, perhaps not as bad, as other professions in receiving new ideas.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 102 April Recorder)

BILHAZIOSIS (DISTOMA HEMALOBIUM).

Of Malefern oleoresin, drams 2; Chloroform m 60; Croton oil m 4; Glycerine q. s. to make ozs., 2. Give one dram three times a day for two or three days, to weaken or destroy parasite. This allays hematuria and allays vesical irritation. After three days, repeat and continue, if required, over two or three weeks. To act as antiseptics to the urinary tract, arbutin, gr. 1, three or four times a day; or Hexamethylenamine, grs. 5; Arbutin, gr. ½ Sodium benzoate, grs. 5; or Hexamethylenamine, grs. 3; Arbutin, gr. ½; Ammonium benzoate, grs. 3. A saline laxative carrying colchicine every morning.

BILIOUSNESS.

The cause must be known, and absolutely, if treatment is to be successful. May accompany constipation or alcoholic excesses, or there may be diarrhea and secretion of bile in excess. Clear out the bowel with calomel and podophyllin, or blue mass and soda, or leptandroid at night, followed by a saline laxative to effect the following morning. To tone up the bowel function, juglandoid, boldine hydrobromide, quassoid, colchicine or bryonin before meals, with chinonanthoid after. For intestinal indigestion, Bileain, gr. ⅛; Strychnine arsenate, gr. 1-128; Pancreatin, gr. 1; Sodium sulphocarbolate, grs. 2½; Sodium carbonate, grs. 2½, an hour after eating. In alcoholics the bile salts freely, combined with the sulphocarbolates, or calomel and podopyllin. For bilious diarrhea, ten to fifteen drops of nitrohydrochloric acid in an abundance of water with each meal with bilein, gr. ⅛ ,and sodium sulphocarbolate, grs. 5, after an hour. If there is urticaria, give half hour for from four to six doses, Blue mass, gr. ½; Sodium bicarbonate, gr. ½, and po-

dophyllin, gr. 1-6, at night. The following have their indications in this condition: Chionanthoid, gr. 1-6; Apocynoid, gr. 1/8; Leptandroid, gr. 1-6; Podophyllin, gr. 1-16; Irosoid, gr. 1-6; Asclepidoid, gr. 1-6; Colocynthin, gr. 1-100; or, Sodium succinate, gr. 1; Podophyllin, gr. 1-12; Calomel, gr. 1-12; Boldine hydrobromide, gr. 1-64; Chionanthoid, gr. 1-6; or Washed sulphur, gr. 1-32; Strychnine arsenate, gr. 1-128; Podophyllin, gr. 1-64; Collinsonoid, gr. 1-128; Berberine hydrochloride, gr. 1-128; or Washed sulphur, gr. 1-10; Strychnine arsenate, gr. 1-250; Podophyllin, gr. 1-25; Rheoid, gr. 1-25, with carminatives q. s.; or Aloin, colocynthin, hydrastoid and rheoid. The salines in the morning are invariably indicated.

BITES AND STINGS.

Apply alkalis, ammonia water, diluted, a paste of soda biborate or bicarbonate and cover with the following: Camphor, Menthol, Phenol, and Thymol iodide, of each, gr. 2-3, with oil tar, cassia and eucalyptus q. s., in a purified vegetable oil to make oz. 1. To prevent biting of insects, black flies, gnats and mosquitos, apply the above mentioned mixture, to which has been added a few drops of the oil of either cedar or lavender, and saturate with calcium sulphide. Immediate relief may be obtained by covering bites or stings with benzoinated collodion or by touching the affected spots with full strength solution of camphor and menthol, of each grs. 20 in liquid petrolatum oz. 1 As a specific for "chiggers" the benzoinated collodion.

BITES, SNAKE.

Ligate at once above wound. Remove the venom by sucking. Excise the surrounding tissue if possible; if not, cauterize thoroughly and rub in permanganate of potassium crystals or inject a solution of ten grains to the ounce of the permanganante. Echinacoid, in dose of from two to five grains every hour, is highly recommended. To eliminate, pilocarpine hypodermically until free sweating is produced. Gelseminine, pushed to full physiologic effect, may be given in conjunction with pilocarpine. As "first aid" the traveler should carry potassium permanganate and echinacoid at all times.

BLADDER, IRRITABLE.

Consider the cause in every instance and correct it. For relief give Arbutin gr. 1-3, with hyoscyamine gr. 1-1000 or gelseminine hydrobromide, gr. 1-250, and lithium benzoate, grs. 2½, with barley water, every three to four hours. In the aged, add sodium contharidate, gr. 1-5000. If hysteria is present, either of the following: Gold bromide, gr. 1-250; Arsenous bromide, gr. 1-250; Nickel bromide, gr. 1-16; Strychnine valerate, gr. 1-128; or Ammonium bromide, Potassium bromide, Sodium bromide, of each, 5 grs.; or, Ammonium bromide, Potassium bromide, of each, grs. 2½; or, Hyoscine hydromide with strychnine valerate. To stimulate nephritic function Hydrastine hydrochloride, gr. 1-64; Berberine hyrochloride, gr. 1-64; Helenin, gr. 1-12; Leptandroid, gr. 1-6 Euratoroid, gr. ½; or., Hexamethylenamine, grs. 5; Arbutin, gr. ½; Ammonium benzoate, grs. 3. Frequently good results are obtained through the alternation of arbutin with barasmoid. The following is frequently very useful, especially when there is a rheumatic diathesis: Calcium carbonate, grs. 10; Lithium carbonate, gr. 1; Colchicine, gr. 1-500; Aromatics q. s. If there is high urinary acidity the following: Sodium sulphocarbolate, grs. 2½; Sodium sulpate, grs. 5; Sodium bicarbonate, grs. 20; Colchicine, gr. 1-500; Juglandoid, gr. 1-6; Xanthoxyloid, gr. 1-6, with Sodium chloride and aromatics q. s. t omake grs. 60. In long standing cases with acid urine, constant desire to empty bladder and scanty secretion, push barasmoid in full dose gr. 1-3 to 1, with lithium benzoate, grs. 5.

BOILS, FURUNCULOSIS.

Stimulate elimination in ever possible way. Clean out and clean up the bowel. Sponge entire body every other day with carbolized epsom salt solution. Saturate with calcium sulphide to combat infection, with echinacoid and irisoid, gr. 1 of the first and gr. 1-6 to 1-3 of the second, four times a day. Arsenous sulphide, gr. 1-64 to gr. 1-32, after meals for a wek, then week for week the arsenates of iron, quinine and strychnine with nuclein, alternated with Washed sulphur, gr. 1-10; Strychnine arsenate, gr. 1-250; Podophyllin, gr. 1-25! Rheoid, gr. 1-25; Carminatives q. s. To reinforce, leucocytes nuclein solution hypodermically. A saline laxative, carrying colchicine every morning. To abort forming boils, inject m 1 or more of pure phenol into center of area and paint entire surface of indurated area with tincture iodine. When unable to abort, apply hot epsom salt compresses or hot kaolin paste and push calcium sulphide and irisoid. Evacuate early and swab incised surface with pure phenol, neutralized with alcohol in a minute. Dress with an antiseptic oil or an oil carrying the distillate of shale tar. Suspect and look for sugar in the urine when there are recurrrent boils. Inject small boils with phenol and protect with coating of benzoinated collodion. For calcium deficiency, iodized lime, which also acts as an alterative, calcium lactophosphate and calcium sulphocarbolate, the latter serving to keep the bowel clean, as well. The sulphocarbolates to clean up the bowel and keep it clean, followed by cultures of the Bacillus Bulgaricus to overcome fermentation and to inhibit the pathogenic bacteria. For acidemia, the sodium and xanthoxyloid compound. To increase waste, alnuoid, and for alterative and tonic effect, ruminoid. As a tonic the following: Strychnine arsenate, gr. 1-128; Iron arsenate, gr. 1-32; Manganese phosphate, gr. 1-32; Zinc phosphide, gr. 1-32. As a laxative the following: Washed sulphur, gr. 1-32; Strychnine arsenate, gr. 1-128; Podophyllin, gr. 1-64; Collinsonoid, gr. 1-128; Berberine hydrochloride, gr. 1-128. Saline laxative with colchicine as the morning laxative. The bacterins are invariably indicated in all cases. To abort use the Staphylo-Bacterin Mixed. When suppuration is established the Staphylo-Albus-Bacterin, or such other bacterin as may be established by bacteriologic investigation. In obstinate cases the autogenous bacterins are frequently preferable.

BRAIN, CONCUSSION OF.

The indication for collapse is glonoin or atropine, with strychnine; if the heart is weak, digitalin hypodermically later. Always avoid high intracranial pressure, however. Heat to eipgastrium, precordium and extremeties, with cold to the head. Normal salt enema and free purgation; elaterin or croton oil, if necessary. Temporary starvation best. Hyoscyine hydrobromide, chloral, gelseminine hydrobromide, the bromides, scutellaroid, a combination of Hyoscyamine sulphate, gr. 1-200; Monobromated camphor gr. 1-64; Scutellaroid, gr. 1-32; Oil of cajeput,; with oil of anise and menthol q. s. or the hyoscine, morphine and cactoid compound. Opium and the ordinary opiates never, nor alcohol. Care should be used in the application of heart tonics, not to over-stimulate.

BRAIN, HYPEREMIA OF.

Patient in bed, with head elevated and cold thereto. Stimulate bowel and kidney functions. One to three of Aloin, gr. 1-12; Podophylline, gr. 1-12; Croton oil, gr. 1-64; Atropine, gr. 1-1000; Strychnine sulphate, gr. 1-128; Capsicum oleoresin, gr. 1-250; following with a saline carrying colchicine. In extremity, croton oil or elaterin. To sedate, barasmoid, gr. 1-3; caffeine, gr. 1, and solanine hydrochloride, gr. 1-32 to 1--6, with small amount of hot barley

water at intervals of three hours. To equalize circulation, veratrine, aconitine., gelsemoid or gelseminine, as required and indicated.

BRONCHITIS, ACUTE.

The patient should always be kept in bed and in a room in which the air is moist and warm. Initially, clear out the bowels with calomel and podophyllin, followed by a saline. To abort, if case is seen early, give until there is slight dryness of the throat, Atropine sulphate, gr. 1-1500; Aconitine hydrobromide, gr. 1-300; Morphine sulphate, gr. 1-100; Calomel, gr. 1-10; or, Atropine sulphate, gr. 1-1000; Aconitine hydrobromide, gr 1-3000; Codeine sulphate, gr. 1-64; Quinine arsenate, gr. 1-32; Camphor, gr. 1-5; Quinine sulphate, gr. 1-5; Atropine sulphate, gr. 1-500. Of either, a dose every half hour to effect, and then every two or three hours. To overcome infection, iodized lime, gr. 1-3 to 2, every two hours. As an expectorant, ampomorphine gr. 1-64 to 1-32; emetine hydrochloride, gr. 1-64, or emetoid, gr. 1-64, every half hour to effect. For irritation, codeine. To relax ,lobeline sulphate or lobeloid, pushed to full effect, or nausea. Inhalations of steam, medicated, or ammonium-chloride vapor frequently give relief. When the process is extensive, guiacol drops 30, rubbed over the chest, or an application of hot kaolin paste. If there is plueritis, bryonin and asclepidoid, pushed for twenty-four hours. Keep mouth and nares clean with watery alkaline, followed by medicated, oily sprays. If there is "tight" cough, with irritation, the following are frequently indicated: Ammonium chloride, gr. 1-4; Extract licorice, gr. ⅛; Codeine sulphate, gr. 1-32; Cubeb oleoresin, gr. 1-32; or, Lactucaroid, gr. 1-3; Morphine sulphate, gr. 1-128; Emetoid, gr. 1-250; Monobromated camphor, gr. 1-32; Licorice (solid extract), gr. 1; Aromatics q. s.; Iodized lime, gr. 1-3; Codeine sulphate, gr. 1-32; Emetoid, gr. 1-64; Extract licorice, gr. 1-6. Heroin is useful where there is irritation, and acillitin as an expectorant. Sanguinarine nitrate to force the cough and assist in removal of exudates. As an alterative, antiseptic and reconstructive, the following: Nuclein solution m 10; Guaiacol carbonate, gr. 1; Iodized lime gr. ½. Calcium suphide to saturation is always indicated to combat infection, with nuclein to reinforce the leucocytes. Quinine arsenate is frequently indicated. The Pneumo-Combined-Bacterin is useful in severe or obstinate cases trendency to chronicity or recurrence. The dose is from 10,000,000 to 30,000,000 every four hours. The medical treatment should not, however, be neglected in any instance. If the case is seen early and hexamethlenamine is pushed to effect, the condition may be aborted. This is more recent finding.

BRONCHITIS, CHRONIC.

Stimulate the bronchi and relieve congestion with Nuclein solution m 10; Guaiacol carbonite, gr. 1; Iodized lime, gr. ½, to which may be added a larger dose of iodized lime. This to be exhibited every three hours. Scillitin, gr. 1-128; calcium sulphate, gr. 1-3; strychnine arsenate, gr. 1-128, and helenin, gr. 1-6, may be given to advantage every four hours. To improve nutrition and increase vitality generally, the arsenates of iron, quinine and strychnine with nuclein. For the cough, if troublesome, Codeine sulphate; or, Lactucroid, gr. 1-3; Morphine sulphate, gr. 1-128; Emetoid, gr. 1-250; Monobromated camphor, gr. 1-32; Licorice (solid extract), gr. 1, with Aromatics q. s.; or, Iodized lime, gr. 1-3; Codeine sulphate, gr. 1-32! Emetoid, gr. 1-64; Extract licorice, gr. 1-6; or, Codeine sulphate, gr. 1-65; Emetoid, gr. 1-65; Aconitine hydrobromide, gr. 1-300; Hyoscyamine sulphate, gr. 1-400; or, Morphine sulphate, gr. 1-100; Tartar emetic, gr. 1-100; Emetoid, gr. 1-500; Pilocarpine nitrate, gr. 1-250. Elimination should be stimu-

lated by the indicated remedies. If there is lack of intestinal or gastric tone give the bitter tonics, as quassoid, juglandoid, hydrastoid or brucine, as indicated. The food should be such as to increase nutrition, in good quantity, but of the sort to be readily assimilated. The bitters should be given before meals, either in solution, or well chewed, in that the appetite may thus be stimulated and the digestive functions be increased. After meals, if there is faulty digestion, Pancreatin, gr. ½; Papain, gr. ½; Diastase, gr. ½; Bilein, gr. 1-32; Strychnine sulphate, gr. 1-128; Ginger, gr. ¼; Vegetable charcoal, grs. 2½; Sodium bicarbonate, gr. 1; or, Papain, gr. 1; Berberine hydrochloride, gr. 1-32; Strychnine sulphate, gr. 128; or, Papain, gr. 1-3; Vegetable Charcoal, gr. 1; Sodium bicarbonate, gr. 2-3; Papain, gr. 1-6; Strychnine arsenate, gr. 1-128; Capsicum oleoresin, gr. 1-64; Emetoid, gr. 1-128; or, Betain hydrochloride, grs. 2; Pepsin, gr. 1; Papain, gr. ½; or Strychnine arsenate, gr. 1-128; Quassoid, gr. 1-64; Papain, gr. ½;; Juglandoid, gr. 1-6; or Strychnine arsenate, gr. 1-128; Quassoid, gr. 1-64; Papain, gr. ½; Juglandoid, gr. ⅛. Nuclein, in full force to reinforce the leucocytes, is invariably indicated in the vast majority of cases. For the winter cough in the aged, sanguinarine nitrate and collinsonoid, with the following combination; Aconitine hydrobromide, gr. 1-800; Digitalin, gr. 1-64, and Strychnine arsenate, gr. 1-128, a dose at 10 a. m. and 3 p. m. with a double or triple dose at bedtime. Th elatter to equalize the circulation. The patient should lead an outdoor life and be taught how to breathe. Flannel, or better, linen mesh, should be worn next the skin. During the summer months cool water or cool epsom salt baths should be taken frequently. During the winter a rub down with an oily mixture of the following formula: Camphor, gr. 2-3; Menthol, gr. 2-3; Phenol, gr. 2-3; Thymol iodide, gr. 2-3, with oil tar, cassia, and euscalyptus q. s. in a purified vegetable oil to make oz. 1, should be taken once or twice a week or even daily, in the morning, will increase the skin tone and act as a defensive. In practically all instances a bacterin is indicated, the Pneumo-Combined-Bacterin, or such other as may be determined by bacteriologic test. If the case persists, an autogenous bacterin is undoubtedly preferable.

BRONCHITIS, CAPILLARY (BRONCHIOLITIS).

The child should be in bed in a warm room, the air of which is moistened with medicated steam. It is preferable that the steam producer be placed so that the child will get the direct benefit for this warm moisture. A sheet tent may be built and the apparatus and child placed thereunder. Inhalations of this sort should be continued, three or four times daily, for ten minutes at a time. The ammonium chlorride vapor is useful in many instances. When first seen the initial medication is in the form of calomel 1-10 to 1-6 gr. every half hour until a half to one grain has been exhibited, the last dose to be followed with a saline laxative to effect. Pododphyllin, gr. 1-64 to 1-6 may be given in conjunction with the calomel, with alternate doses of the latter. Guaiacol 15 to 30 drops rubbed into the chest, or a hot kolin paste, o rhot epsom compresses and covered with a cotton jacket, may be used with good effect, or the chest and over spine may be rubbed with a mixture of one part oil of amber with Camphor, Menthol, Phenol and Thymol iodine, of each gr. 2-3, with oil tar, cassia and eucalyptus q. s., in a purified vegetable oil vehicle to make oz. 1, three parts. To over come infection, iodized lime, gr. 1-3, or Nuclein solution m 10; Guaiacol carbonate, gr. 1; Iodized lime, gr. ½, every two hours. For the Fever, Aconitine hydrobro-

mide, gr. 1-3000; Digitalin, gr. 1-250; Strychnine arsenate, gr. 1-500; or, Aconitine hydrobromide, gr. 1-300; Digitalin, gr. 1-250; Veratrine, hydrobromide, gr. 1-300; Digitalin, gr. 1-250; Veratrine hydrochloride, gr. 1-500, either to be given at such intervals as will increase the pulse rate and lower the temperature. All the above should be given in solution, the iodized lime either dissolved in hot water, or given crushed and followed by a small hot drink. As an expectorant, in the early stages, emetine hydrochloride. To relax, where the secretions are excessive and respiration seriously embarrassed, lobeloid, alternated with sanguinarine nitrate or ammonium carbonate. To support cardiac function cactoid and brucine, and for pleurisy, if present, bryonin and asclepidoid. To increase kidney action, gr. 1-64 to 1-32 of asparagin several times a day. Nuclein solution, m 5 to 10, on the tongue from the very first, with increase in dose as condition improves, this to enforce leucocytosis. As improvement appears, iodized lime, or Nuclein solution m 10; Guaiacol carbonate, gr. 1; Iodized lime, gr. ½, with calcium sulphide to prevent recurrence. Brucine hydrochloride or strychnine arsenate are preferable to alcohol and the latter is rarely required, or indicated, for obvious reasons. In emergencies stimulate with ammonium carbonate, camphor, or camphorated oil, the latter hypodemically. If the child shows a tendency to "drown in its own sputum" give full dose of apomopphine as an emetic and follow with cactoid to support the heart, with lobeloid or sulphate to relax. As a tonic in the convalescent stage, Strychnine arsenate ,gr. 1-64; Quinine arsenate, gr. 1-32; Iron arsenate, gr. 132; Nuclein solution m 8; Iodized lime, gr. 1. Among other agents which may be indicated are scillitin as an expectorant; guaiacol chloride, gr. ¼; Extract licorice, gr. ⅛; Codeine sulphate, gr. 1-32; Cubeb oleoresin, gr. 1-3; or, Iodized lime, gr. 1-3; Codeine sulphate, gr. 132; Emetoid, gr. 1-64; Extract licorice, gr. 1-6. The Combined-Bacterin (Van Cott), 50,000,000 to 100,000,000 every four to eight hourse, or the Pneumo-Combined-Bacterin, 50,000,000, repeated in twenty-four hours, then every four to six days, will frequently act to abort, or to prevent serious complications in the severe cases. However, the bacterine should not be depended upon, wholly.

BRONCHIECTASIS (PUTRID BRONCHITIS).

To combat infection, calcium sulphite to saturation, iodized lime, or Nuclein solution m 10; Guaicol carbonate, gr. 1; Iodized lime, gr. ½. As tonics the arsenates of iron, quinine and strychnine with nuclein, alternated with Iron Phosphate, gr. ½; Potassium gr. ½; Magnesium phosphate, gr. 1-12; Nuclein solution m 4. Inhalations of ammonium chloride vapor, medicated with eucalyptol and idodine, or medicated steam may prove very beneficial. proper living, with good nutritious food and right breathing, should be insisted upon. The patient should be sent to the pine woods for a tent life of several months. A complete cure, if possible, may be brought about, else tuberculosis suprevene. The bacterins are useful in many cases, the Pneu-Bacterin Combined being the one usually indicated. An autogenous one my be required in some instances.

(To be Continued.)

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Bandages applied to the thigh have a habit of slipping down, and plaster may so bear at its lower end as to cause excoriation. Any bandage of the thing which does not encircle the pelvis should be suspended by adhesive strips or shoulder strap.—Bernays' Golden Rules of Surgery.

MISCELLANEOUS

WHAT IS SLEEP?

W. Stuart Leech, M. D., Roseau, Minnesota.

Ordinarily sleep is a condition in which consciousness of the form world is lost, and is a state or condition in which the dense body, especially the brain, enjoys functional rest while the constructive activity goes on.

Our standard medical authors give us no less than six formulated theories as to sleep and its causation, the greatest being that "It is an instinctive reaction of defense of the organism against fatigue, evolved by processes of natural selection." It would be advisable for the student to refer to Stoddart or some other medical writer and familiarize himself with all of these six theories and then open his mind for the seventh explanation which is not theory but is a self-demonstratable fact. In our pursuit of knowledge, if we are to be true men of science, we must hold ourselves in a receptive mood, otherwise we can never sense the truth.

In order to obtain a quicker understanding we will ask you to accept this fact that a man possesses besides the dense body (physical) a vital body, a desire body, a mind, and an ego, all of which can be sensed after certain attainments in Nature's school. Space forbids us to discuss these possessions, namely, the three-fold soul, the three-fold body, and the three-fold spirit, the latter consisting of the divine, human and life spirit of man. Be it sufficient in this brief article to say that man has a spirit.

During sleep the excretion of urea is diminished, so is the excretion of carbon-dioxide gas. Heat production is diminished to about 40 kilo-calories per hour, and the brain is more or less anaemic. In the wakeful state we find that there is war on between the dense body and the desire body. It stands "Mind and Desire Body vs. Dense Body." The vital body also retreats. When exercise takes place heat production advances from the 40 to 300 kilo-calories per hour and all other metabolistic complexions are accordingly working at a high tension.

Imagine yourself, the dense body, made up of millions of chemical atoms all in a state of vibration, and extending out from the center of each atom a line or ray in a higher state of vibration than the visible chemical although these lines or rays are material. These lines extend out in every direction to a distance of twenty inches from the surface of skin and constitute what is known to the enlightened world as the vital body. This body specializes solar energy for the whole physical organism. The desire body extends one and a half inches from the surface of the skin and is an exact reproduction or is the prototype of the dense body. Such men as Goethe, Schiller, Paracelsus, Pythagoras and Behmen saw these bodies, and they could see, as many others now living can see, the pale rose color of vitality which has been transmuted and is now coursing every live nerve. When the poisons of fatigue and disintegration clog the physical body, the lines of the vital body shrink, the chemical atoms of dense body move more slowly, the ovoid vital body almost collapses and the slow vibratory motion of the atoms causes the Ego to withdraw until the spirit can recuperate the dense body. Then we say he has gone to sleep. The same as death except that the spirit still remains in the temple and the silver cord remains intact. The Ego has taken the desire body and the mind and withdrawn. When a boat needs repairs it needs be that the occupants temporarily move

out that the workmen be unhampered. It is so with the body in its restoration. The word restoration implies work of an efficient kind. The spirit is the workman that does the work during sleep, but where dwells the Ego, mind, and desire body while the house is being repaired?

We have read in Holy Scripture that the spirit of God never slumbers. Man, when not devoluting, is called the son of God, and the Spirit partaking of the nature of its Father also never sleeps. In our wakeful state we are self-conscious normally, and after an eight hours' sleep we can take up a thread of thought or our duties at the point we left off on the preceding day. This evidence makes it self-evident that we are self-conscious beings functioning of this physical plane when not in the state called sleep. Such is cardinal fact needing no further demonstration.

By "Living the Life" and by persisting in certain physical and beneficial mental exercices the pineal, pituitary organs and certain other nerve centers of our dense body can be developed to the extent where we can withdraw consciously, function consciously in the desire and other of the higher worlds in a more realistic manner than in the form world while in the wakeful state. The thread of thought can be taken up right at the point it was left off the previous night or can be taken up at will at any point. Systematic work can be conducted with judgment and wisdom, otherwise, as with the uninitiated, it is done in a random, hap-hazard way.

There is a strong vibratory action or pull between all the organs, natures and bodies of a man similar to that of the magnet for steel. In the somnambulist or sleep walker this attraction is profoundly noted for the dense body and spirit attempt to follow the desire body and mind and ego over houses and elsewhere in midnight excursions. In such the bodies are not properly correlated, being on the brink of a pathological state. When the (physical) or dense body falls asleep the Ego witdhraws and hovers near the dense body until repair has been satistorily accomplished. At times the Ego "travels in foreign" countries, which is in generally the desire world. And in returning from these somnolent excursions is unable as a rule to impress the brain with the events of the occasion, because the vibrations of the desire body transcend those of the dense. The dense body can be so developed that it can harmonize with the desire or higher vehicles. These thoughts may seem preposterous to those who have not given the subject thought; but do you think an economical nature is going to permit you to waste one hour out of every three? Can you find anything in nature at a dead standstill? The higher the quality of a thing the greater the radioactivity.

A multitude of events or some absorbing business may hold the attention of the desire body so that it will refuse to leave the dense body either in whole or in part, which gives rise to the condition we call insomnia. If the desire body is only partly withdrawn it will give rise to fantastic illusionary dreams. The world's then being improperly correlated from the mind's standpoint. On awakening from this state restoration is found to have been incomplete or not at all. Ina nutshell, this then is the sum and substance of the state we call sleep, and the truthfulness of the statements can be verified or self-demonstrated by any seeker for the truth. Theories and personal wishes may direct you into other channels but by following sublime facts step by step, however long you may search, you will reach no other goal. At the juncture of sleep with wakefulness the subliminal and the

supraliminal meet. Here is the portal of sublimity and there are physicians in every part of this land of intrepid courage who have entered the gateway to the desire world and have added to their Therapeutics a method of healing heretofore undreamed of by our forbears.

Sleep can no longer be considered a solution of continuity of consciousness, for a continuation of consciousness from one state to the other can be, has been and is being established by many.

SPONDYLOTHERAPY.

By J. A. Burnett, M. D., Hartshorne, Okla.

Spondilotherapy is a drugless method of treatment or a mechanical method of spinal treatment which was brought into use by Dr. Albert Abrams of San Francisco. Dr. Abrams is author of a book on this subject.

Spondylotherapy covers chiropractic thoroughly and far much more. Spondylotherapy is scientific and is not covered by mysterious claims. Chiropractic is not scientific and those who advocate it try to cover it by important or misleading statements. All scientific physicians who have investigated Spondylotherapy agree that it is a very important method of treatment, and all who have invesigated Chiropractic know there is very little in it. Chiropractic is only a quack method of Spondylotherapy.

Spondylotherapy is not advocated as a "cure all," but one of the important branches of medicine occupying a place similar to vibratory therapy, thermotheraly, electrotheraphy, etc.

The so-called chiropractors claim that Chiropractic is a complete system of healing and is all that is needed to cure any disease. Chiropractors graduate in chiropractic schools in a few months, or by taking a correspondence course, hence their knowledge is too limited to even judge of the value of their own system.

In order to evade the law chiropractors claim they do not "treat" diseases but "adjust" the cause. Most courts that have ruled on this consider it "treatment" and the chiropractor has been fined for practicing medicine without license. Anyone has as good a right to take up electro therapy or vibratory therapy or any other form of drugless treatment and practice it as well as chiropractic, for it is all included under the term of practice of medicine.

If anyone wished to make a specialty of spondylotherapy, vibratory therapy or any other form of dry or dryless treatment he should first complete his medical education in a medical college and then he could take up the desired specialty and practice it intelligently and legally.

The chiropractors claim that all dieases are caused by one or more of the vertebraes getting out of place and that the way to cure it is to "adjust" it, or in other words, they put the vertebrae back in place. I have devoted some attention to chiropractic for a long time. There is a monthly journal called "The Chiropractor." On page 4, September, 1905, I have a note. I have six notes in the December, 1905, issue. Also one, "A Mule Chiropractor," in the April, 1910, issue.

There was a journal published at irregular intervals called "Backbone." I have a letter published in it on page 125 in the issue of July, 1905, to January, 1906. Vol. 2, numbers 10 to 12; vol. 3, numbers 1 to 4. (This was a combined issue.)

I have an article, "Chiropractic," in December, 1905 Modern Electism, and an article, "Chiropractic History and Treatment", in June, 1906, Modern Electism.

In the January, 1906, Wisconsin Medical Recorder I have an article on "The Physiology and Pathology of the

Cracking Sound in the Joints.'' In the January, 1906, Medical Summary I have an article, ''Inforation Concerning the Cracking Sound of the Joints.'' The last named two articles resulted from a correspondence I had concerning the cracking sound that occurs in joints. The chiropractor often produces a cracking sound in the spine when he gives an ''adjustment'' similar to the cracking in a joint by twisting it. Some claimed this was evidence of the vertebras going back together, which is a mistake. The first time I ever tried to give a chiropractic treatment (adjustment) I produced the cracking sound. I have mentioned the above reference as evidence of my studying this form of treatment for some time.

If spondylotherapy was more generally known fewer drugs would be used. All physicians who have not investigated spondylotherapy should be sure to do so

MRS. WALDO GADDERBY.

Sketch by E. P. S. Miller, M. D.

Mrs. Waldo Gadderby was the wife of Mr. Waldo Gadderby an old-fashioned type of bank clerk. I should have said that he was the husband of Mrs. Gadderby; anyhow he was a man of few words and it was just as well that he was so for if any words had been lacking in their house Mrs. Gadderby would have supplied them. She kept a boarding house for students on the West Side and he staid aound and did the errands when not at the bank. Mrs. Gadderby used to hustle through her work and from two to five o'clock in the afternoons it was her favorite custom to go calling. At some places she was welcome and at other places she was regarded v ariously as an infection, an infliction, or an affliction. However it was easy to entertain her because all one had to do was just to listen—she would do the rest. In the evening after the house was pretty well settled for the night Mr. Gadderby had to listen to the result of her calls, and like the patient man that he was, he would listen to the end without going to sleep. He was certainly entitled to a Carnegie medal.

One evening last month she complained of a severe head ache but in spite of it she reported to Mr. Gadderby an account of her afternoon calls, somewhat in the following manner.

''Well Gadderby I went out calling this afternoon and the first place I went to was Mrs. Smith's and she was sitting in the front parlor and she was having some dressmaking done. I could hear the sewing machine going in the pack parlor but I couldn't see who was a using of it. But I started right in to tell Mrs. Smith what a time my dressmaker Mrs. Bangs, had makin' my suit last week. I says, says I, she made a botch of it, she made the skirt too short and so tight that I ripped one of the seams getting into a car. I just think those dressmakers just take a delight in slashin' goods and making expenses. Well just then Mrs. Bangs comes out from the back parlor and she says, says she, Mrs. Smith I don't want to insult your guest but I want to tell you that Mrs. Gadderby insisted on my m aking that skirt two inches shorter than I wanted to make it and—Well I just got up and left and I went straight over to see Mrs. Waite.

''Mrs. Waite has only been married three years and I have called on her 16 times and I always thought she wasn't as happy as she orter been and so when I went in to see her I got to talking about marriage and divorce and I says, says I. that divorce is one of the greatest evils of the day and I didn't see why women couldn't stay married when oncet they did get married. Now Mrs. Waite she jest kept

a smiling kind of pleasant like, just as if she was holding herself back from laughin' at some joke and I noticed it and I says, You seem lots happier than when I saw you last. And she says, Yes, you see I got my divorce from Jim today and now I am free. I says Law sakes and I just hikes out from there pretty quick and I went over to see Mrs. Collar.

"Mrs. Collar she's just a young thing and she has ot a six weeks old baby and I thought I would drop in and give her some advice about the raising and upbringing of that ere young one. I saw a handsome man with a beard and a pair of nose-glasses coming out of the house and I supposed he was the doctor and when I got into Mrs. Collars I seed she was very anxious about the baby but she didn't ask me into the back parlor where the baby was and there was a smart looking woman standing by the crib. I says to Mrs. Collar, I'm glad you got a man for that baby. I ain't got no use for women doctors and I don't think women was ever cut out to be doctors. Most of the boys that room at my house call 'em hen medics. Women has got brains I admit but they ain't got nerve to use their hands steady when everybody around is excited. Just then that smart looking woman she takes out some instrument out of a hand bag and she makes the nurse hold the baby's head an' she puts in a tube in that baby's throat and I jumps up and says what on airth are you doing to that there baby and she answers as cool as a cucumber, "This baby has diphtheria and I am one of those women doctors you've been talking about. I have put this tube into the baby's throat so that it can breathe and not die on our hands."

"Diphtheria and a woman doctor! them was too much for me and I lit out and I came home and I sits down to read and I picks up Mcboors Cosmowhappelion Magazine and I got to reading about those Mormons out in Utah and I saw a big picture of a big snake eating out the vitals of a big temple and while I was reading it that young man that is studying medicine and has the front room, the one you know, Mr. Nelson, the one who is so prompt about paying his rent and don't smoke or swear or rush the can like the most of them students. Well I looks up from my magazine and he stands there smiling sort of pleasantly as if he had a good joke up his sleeve and was waiting for a chance to spring it and I says Mr. Welson what do you think about them Mormons and he says Oh, I don't know, what do you think about them Mrs. Gadderby and I lights right in and I tells him I don't think they're human beings and I believe if I should meet a real live Mormon I'd call the police and demand protection. I never did see one in my life as I knows of, and Mr. Welson he looks at me with the pleasantest sort of a smile and he says, Take a good look at me, Mrs. Gadderly for I am one of those Mormons you have been reading about and before I could swallow my surprise he says I can't stop to tell you now about our people for I am going over to the University to get another degree and next week I am going as a medical missionary to South Africa. I tell you Mr. Gadderby my head just aches."

Do you wonder at it? I don't.

♣ ♣ ♣

If blood pressure is too high, purge your patient freely and put him on moderate doses of veratrine. Potassium iodide to sustain action.

♣ ♣ ♣

Use Salvarsan in your syphilis cases —but do not give u pthe use of mercury.

"REPORT OF A CASE OF GLYCOSURIA OF PREGNANCY."

By W. J. Allen, M. D., Beloit, Wisconsin.

I could find so little in the literature in regard to Glycosuria in Pregnancy and what I found seemed to show that the condition was so rare and serious, that I thought the report of a case which I have recently treated would be of interest, especially to those doing obsteterics.

This was a case of a young lady, twenty-six years of age, tall, slim and in good health. She became pregnant five months before she came under my care. The mother came to my office to engage me for the confinement and told me at the time that her daughter was in unusually good health.

I asked her to bring me a sample of urine, which she did the next day. I examined it while the mother waited and found it perfectly normal. I told the mother that the urine was all right and to bring me another sample in three weeks or earlier if there was any change in her daughter's condition.

Three weeks later the mother returned and told me that for the last three or four days she had noticed that her daughter did not seem as well. She wanted to lie down most of the time, seemed short of breath and was losing her appetite. I asked her to go back and bring me a sample of urine, which she did the same day, and upon examination I found 12 per cent sugar, no albumen, Sp. G. 1023.

I put her on a non-carbohydrate died immediately and called on her the next day and found a very sick woman. She sat bolstered up in bed, having difficulty in breathing, vomiting all food and water, very thirsty and complaining of pain through the chest and back. The next day I found all these symptome intensified and that she had been unable to sleep. The bowels had moved several times from the laxative I had left the day before. I examined the urine and found it to be the same. I now advised emptying the uterus but the family objected and wanted counsel, which we got the following day. Then I found not only the same amount of sugar but a decided evidence of albumen.

The physician called in counsel agreed with me, that the woman would certainly die unless delivered at once and even then the prognosis was grave. The husband and parents were so opposed to the procedure that they then took the urine to a professor of chamistry in Beloit college for analysis and after four days told me I might go ahead with the delivery.

By this time the patient was in a very critical condition; pulse, 140, weak and intermittent; extremities cold and blue, breathing very shallow and labored. She was given stimulants and removed to the hospital, where uterus and vagina were packed with gauze to promote dilitation, while she was stimulated to try and get her condiiton improved before delivery. About two hours later I was called to the hospital, the nurse telling me that the patient was dying. I found her unconscious and looking very much as though she might die within an hour or two. I immediately removed the uterine packing, found a little dilitation and the head presenting. I then completed dilitation with my fingers, ruptured the sack, which contained three quarts of amniotic fluid, applied the forceps and delivered a six months' foetus. I did not give her any anaesthetic, in fact did not need any as she told me afterward she did not remember a thing after she reached the hospital until the third day of her stay.

After the delivery she was kept on a normal salt and simulants for two days when she began to improve rapidly and I thought would ultimately re-

cover, as the albumen and sugar had cleared up. She was in the hospital two weeks, then went home to her mother for about a month and then began to feel so well that she joined her husband, who was studying to become a Chiropractor in Davenport. He gave her spinal adjustments and let her eat all kinds of food for about two months, when she re turned to Beloit and I was called again. I now found her in a hopeless condition, sugar and albumen again present in the urine; bowels had not moved for several days, vomiting incessantly and severe headache. I could not give the family any encouragement and only had the case thre or four days when they told me they wanted to try Christian Science. She died a week later.

In reporting this case there are a few things that might be considered.

First—Did the patient ever have Glycosuria before? Not that is known.

Second—Would an earlier delivery have made any difference?

Third—Was the Glycosuria due to the pregnancy or independent of it?

The fact that she improved as soon as delivered looks as though it was due to pregnancy.

Fourth—Had she kept up with the diet would the result have been the same?

EXPERIENCES OF A MEDICAL NOVICE IN MEXICO.

By Howard D. Eaton, B. A., M. D.

In response to a request for another paper on Mexico I thought that perhaps a few case reports, selected at random from my file, might prove of interest.

It is some time since I have heard anyone emphasize the duty of keeping case records, and I know that I, at least, have been growing a little careless in that respect, after having kept up the habit for several years. My stock of index cards gave out about the time I left Mexico, and I neglected getting a new supply until a few months ago; but I regret having waited so long, for on reviewing my file, several records have turned up which have more than paid me for my trouble in keeping case histories; to say nothing of the benefit of the habit itself in helping one to be more thorough. Josh Bilings said that "Success don't consist in never making blunders but in never making the same one twice." He might have added, "but if you do make the same blunder twice, be mighty leary about making it a third time." Rememebr your case histories ought to keep you from making the same blunder three times, even if most of us do make the same blunder twice. The most interesting and the most helpful medical articles I have seen have been those in which some doctor has been brave enough to tell us of the mistakes he has made, for as a rule we can learn lots more from our mistakes than we can from our successes.

Case (1) A professional gambler, age 41, runs a gambling hall in a mining town; looks like an Arab or a Turk but says he is a Mexican. The nature of his occupation makes him turn night into day and besides he has to strain his eyes by a kerosene light to see the private "spots" on his cards in order to outguess his patrons or victims. That he is exceedingly nervous and "fidgety" is not surprising as he lives in an atmosphere of excitement and has to use plenty of "nerve." He says he never smokes or drinks—a rare bird indeed in Mexico—that he has never been sick before, never took anything for his bowels even, and denies any venereal disease. Five months ago he began to have a daily frontal-occipital headache extending into the post-cervical nerves, of such severity as to nearly drive him crazy. Treatment by

his local doctor had been of no avail and he had been referred to an American doctor in our city. Dr. S. had gone after him in a thorough, business-like way, trying everything he could think of including static electricity and the extraction of three molars, without benefiting him. He next was turned over to the best oculist in town who fitted him to two sets of glasses; but still the headache continued. I made as thorough an examination as I knew how, including blood pressure. He was the most nervous man I ever saw, unable to sit still long enough to be examined having to get up and walk around the office in the midst of my examination, pulse 100 sitting, 128 standing. No physical findings of any importance except that he was thin almost to emaciation. Gave him "Analgine" tablets of a special make which I had reason to think no other physician had tried on him, which gave him a little relief after taking enough to kill an ordinary mortal. I then gave him Fowler's solution followed later by "Triple Arsenates" with Nuclein, to build up his (very) nervous system. The headache came back every day at 4 a. m. but it would yield to smaller doses of the analgesic than it took at first and he would be free from pain nearly all day—a new and gratifying sensation. After going on this way for a fortnight he returned one day with his head aching worse than at any time, not even yielding to the tremendous dose of eight headache tablets. I then gave him three grains of calomel in ⅛ grain doses followed by an ounce of magnesium sulphate not having done so before because I had taken it for granted that some of his previous doctors must have cleaned him out. There was where I made a mistake from lack of thoroughness in taking his history. He certainly got a good cleaning out at last for the next day he reported having had fourteen copious, foul smelling evacuations; the first real purge he had undergone. I then gave him an intestinal antiseptic, and an A. B. S. pill to be taken every night for a week and the headache disappeared for 48 hours at one stretch and on reappearing, yielded promptly to one migrain tablet containing but one grain of acetanilid. I then prescribed a daily cold shower bath of two minutes duration followed by a brisk rub. The first one he took nearly killed him as he stood under the shower about ten minutes. The next day he was careful to follow directions and he experienced the desired pleasant reaction. There was no headache for five days while taking the baths but I gave him another purge to make sure, producing nine evacuations. He then felt fine for about three weeks, when, after three nights of his accustomed "work," which he had been taking a vacation from during his prolonged course of treatments, he had a return of the old symptoms, but a repetition of the "clean out" treatment accomplished a complete cure. This case reminds me as I review it, of the necessity of thoroughness in history taking as well as examination. It also proves that a novice may succeed where older fellow practitioners have failed, if he only takes the trouble to be thorough.

Case (2) A veteran of Indian wars, a Mexican about 80 years old had had two toes amputated three months previously because of senile gangrene but the disease had continued to spread until about half of the foot was involved. I administered chloroform while Dr. S. amputated the leg midway between ankle and knee. The operation was done in a tenement house under very dubious conditions from a surgical standpoint, but the results were all that could be desired. The patient was out in a short time, stumping around on a wooden leg of primitive design, and was alive and working

for his living five years afterward and is still alive for all I know unless he has been hit in a vital spot by some of the many millions of bullets of all types that have been darkening Mexico's cloudless skies for the past four year. It is never too late to amputate for senile gangrene, but while you are at it be sure sure to cut off enough and yet not too much.

Case (3) An American lady, a widow of 78, small and frail looking, and bent over from hard work, her present occupation keeping a large rooming house. She was subject to chronic recurrent bronchitis and had suffered from several attacks of pleurisy. She was taken sick on the 17th of February, 1907, with a chill followed the next day by fever, cough and pain in the left costal region. (Her attacks of pleurisy had usually been on the right side). She was first seen by me on the 18th. Her face was flushed, resp. 32, pulse 106, temp. 38.5 Centigrade, dulness of left lower lobe posteriorly, diminished breath sounds on rights ide with occasional frictional rubs or rales (old pleurisy?). Dullness in the right upper lobe in front with crepitant rales. Diagnosis: Lobar pneumonia in left lower lobe and right upper lobe on top of a chronic bronchitis. Treatment aconitine 1-134 grain every hour. Calomel and podophyllin one grain of each in divided doses. At 8 p. m., 10 hours after first visit, her daughter reported that she had been delirious all day and very weak, but had suddenly become calmer just prior to my arrival. Her temp. had droped almost to normal or 37.3 Cent. pulse 78, resp. 28,—a crisis on the third day. She was comfortablbe all the next day, taking aconitine and bryonin and continued in statu quo for two days, sleeping peacefully until midnight of the 2nd day when she insisted on getting out of bed to sit on the chamber. Soon after this exertion her breathing became labored at 32 per minute, temp. 38 and pulse 84, and she gradually grew worse as the pneumonia extended to the hitherto comparatively healthy part of both lungs, despite repeated doses of aconitine and strychnine. By the evening of the 23d of February, or the 7th day of her illness, the patient's temp. was 39.5, pulse 88 and resp. 36 and she was very weak. Another doctor was called in consultation and gave a guarded prognosis. Having read recently in the Journal of the A. M. A., Dr. Galbraith's report of 40 cases of pneumonia among Mexican miners in Sonora—a disease exceedingly fatal in that class of people—treated under very unfavorable conditions, with heroic dosage of quinine and tinct. of ferric chloride, without a single death, I decided to try the treatment. So I gave the old lady 40 grains of quinine at one dose with 15 minims of FeCL2 and repeated it every 3 hours. The patient's nourishment for the last two days had been a proprietary preparation of beef every two hours. One hour after the first dose of quinine, she was looking and feeling a little better, and the next morning she was much better with her temp. only 34.4 pulse 80 and resp. 30. Strange to relate there was no tinnitus aurium from the quinine just as Dr. Galbraith had said had been his observation. However, a few hours later, the quinine having been stopped on the nurse's responsibility, on account of the patient's seeming so much better,—the temp. rose to 38.5 with resp. at 36 and pulse 88. The heavy doses of quinine were at once resumed and that night the second crisis came for in the morning her temp. was normal, pulse 78 and resp. were 28. Her recovery was uneventful from then on. The Galbraith treatment was apparently very beneficial in this case, probably saving her life, for double pneumonia in a feeble person of

78 years, subject to pleurisy and bronchitis and living at an altitude of 4780 feet above sea level, would ordinarily give a very guarded, not to say bad, prognosis.

Case (5) I did not see this case myself but a colleague of mine in a nearby mining camp told me of it as it occurred in his practice and I thought it of sufficient interest to make a record of it. A miner was working in the bottom of a shaft about 100 feet deep when a fellow workman who was walking on a plank about half way up the shaft, accidentally dropped a crowbar which fell point downward and transfixed the man in the bottom of the shaft as he was bending over, passing through the lumbar muscles and gluteal region very close to the hip joint, literally pinning the man to the ground. The messenegr who went for a doctor had to travel about 9 miles of mountain trails before finding him and the doctor had to travel horseback (no chance for an auto) over the roughest kind of trails to reach the patient who remained "pinned" for about two hours unable to move in a truly pitiable plight. The doctor and another man were unable to pull out the bar with their combined efforts until they had attached a block and tackle. Upon being extracted the bar left a big hole, but strange to say, there was no hemorrhage. The patient was carried to his cabin, or rather, cave, 7 miles distant and made an uneventful recovery without acomplication. About a month later the doctor was sent for because the man's jaw had become locked. Naturally the doctor at first thought he had a case of "lockjaw" on his hands and, another doctor happening along, had him see the case with him. A careful examination then showed that the jaw was merely dislocated.

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F. W. VAN KIRK. M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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Reports and items of interest are gladly received.

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RECREATION.

It is often said that a busy physician seems to grow old faster than any other class of professional or business men. How many of the profession, I wonder, ever think of this or stop to think why it is so? I believe there are a number of reasons that might be given, but I am going to say a few words on what I consider is one of the main reasons, if not the principal one.

How many of us are there, that plan some sort of recreation for ourselves, outside of our routine work, or how many of us are there who plan to take each year a regular vacation, one where we are entirely out of touch with any of our work.

You cannot name another profession where the members of it do not leave some time for play, so to speak.

I feel that one of the main reasons for this is, that when a physician goes away for one, two or three weeks his business is at a standstill—practically he has no one to leave it with, he may recommend a professional friend to his patients, but they will go to whom they please and invariably there are some cases that he will lose. We do not stop to think that there is a certain per cent of cases that we are losing all the time, for we all see many people who wish to be cured in a day, and if they are not will drift to some one of our colleagues.

It seems to me that there is no class of men who need a total rest from their labors more than the physicians.

There are no class of men who are under such a constant strain as physicans, therefore why don't we do as we advise our patients to do when they are overworked, take a rest. I am afraid the reason is that we do not wish to run the chance of losing any of our practice.

When we stop to think of it how foolish we are, for we all know how much better one feels after a few weeks away from the steady grind and how much better equipped we are when we return, to do better work.

We are now entering upon the season of the annual meetings of the State Medical Societies—if you have never attended one, plan to attend yours this year. You must not expect to learn too much at these meetings, you must go with the idea of picking up a few new ideas, meeting a great number of fine fellows who like yourself are looking for a good time and a good time is always planned by the committee in charge.

Make a resolution now to get away for a time this coming summer, either attend your State Meeting or take a trip somewhere so as to get a complete change, and in planning this vacation do not fail to include your wife, who needs a change from the necessary worries of a physician's life as much as you do.

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We are always more than interested in what the boosters of "The Recorder" are doing in their respective states.

At present writing we have in mind Dr. Frank P. Davis of Enid, Oklahoma. Dr. Davis has for a number of months had charge of the Department of Book Reviews for our journal—and I am sure you have all enjoyed reading the same.

Just at present Dr. Davis is busy with a little outside business as he is Democratic candiate for Lieutenant Governor or Oklahoma. This is surely an honor and we wish him success at the polls and we are only too glad to tell our readers about our mutual friend, who is helping boost our journal and we hope our many readers in the state of Oklahoma will do the right thing on election day.

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Children should have all the food they can properly digest. Each child should be considered as a unit, and should be treated as such. It must be remembered that the best obtainable milk is the best food for the growing child of tender years.

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In a sepsis of unknown origin is associated with a positive blood culture, don't fail to examine the ears. Sinus involvement from otitis media may be present with little objective evidence and no other symptoms than fever and chills.—Amer. Jour. Surg.

THE DOCTOR'S LIBRARY

INFANTILE PARALYSIS with Modern Methods of Treatment. With Reports on the Treatment of Three Thousand Cases. By Henry W. Fraunthal, A. C., M. D., Surgeon and Physician-in-Chief, New York Hospital for Deformities and Joint Diseases, and Jacolyn VanVliet Manning, M. D., Epideiologist. With over one hundred illustrations, nearly all original. Philadelphia. F. A. Davis Company. 1914. Cloth $3.00.

This is the most complete and practical work upon the subject that has come to our knowledge. The extensive clinic afforded by the New York Hospital for Deformities and Joint Diseases, with a daily attendance of 100 to 150 children gives the authors a source of information and experience that few are in a position to obtain. In observing and treating three thousand cases they have had an experience that warrants them in speaking with authority.

The chapters on physical therapy and manipulative treatment are written in plain language and can be understood by the parent so that they may give the necessary treatments at home when it is deemed advisable.

The authors have condensed the facts gleaned from their extensive experience into the smallest compass in keeping with a clear expanation of their findings, and have not attempted to build up a bulky volume by padding or referring to the obsolte and frequently misleading literature of the past.

This is a very complete work, and one that every physician should study. A case of infantile paralysis may come up in your practice any day, and you should be prepared to deal with it in the most approved method. This book gives the information you will need when you have a case with which to deal.

This book is well bound in cloth, contains 374 pages, and the price $3.00 is very low, considering the high quality of the contents and the standing of the authors.

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THE HYPODERMIC SYRINGE. By Geo. L. Servoss, M. D., 317 Pages. Cloth $2.00. Neward, N. J. Physicians Drug News, Publishes, 1914.

While the hypodermic use of remedies has greatly increased in recent years the literature on the subject has been scant. The first work on the subject that we remember was by Bartholow but this was a good many years ago. Later Dr. Frank ebb gave us his excellent little book on Hypodermic Medication. Servoss has given us, in the book we are reviewing, the most complete work on the subject that has come to our notice. Not only does he take up the hypodermic use of the usual drugs used in this manner, but gives considerable space to a consideration of antitoxins, serums and bacterins, and to such chemicals as are used hypodermically.

The book contains seventeen chapters and treats of the construction of the syringe, proper technique, and the use of a large number of remedies. It contain a review of all recent literature on the subject, and is a book that should appeal to every physician who desires to get the meat out of his profession. The author is practical, and the book is the result of much study and practical experience.

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INTERNATIONAL CLINICS. Vol. 1. Twenty-Fourth Series. 1914. Philadelphia, J. B. Lippencott Company. Cloth $2.00.

Wisconsin Medical Recorder

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INFLUENCE of HABIT

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

The profession scarcely realizes the profound influence of habit upon the welfare of the individual. It is one of those traits of the human mind that binds with chains, without attracting the attention of either the physician, or his patient; with the result that many patients have abandoned the profession and have sought relief elsewhere.

The number of our people who are victims of habit is alarming; and it is due to accident, ignorance, and a lack of general information among their medical attendants.

The number of chronic invalids who present themselves at my office, who habitually drink from one-fourth to one-half the water that is actually needed to carry on their metabolism, is astounding.

Curiously enough these people when charged with their shortcomings are very indignant, and will usually claim that they are great water-drinkers, and will stick to it, until it is actually demonstrated to them that they are mistaken.

In our asthmatic cases, we have large numbers of these patients, whose only fault is a marked water fear. On the other hand we have a certain class of patients who are drinking four or five times the amount of water that would be safe. They are the people with great kidney and lung capacity. Oxidation is unusually active, with the result that they hydrolize their tissue; washing out all of their useful salts, and they generally acquire a mental apathy, with a great loss of energy; and usually present themselves with a diagnosis of neurasthenia.

SPECIALIZATION OF FOODS.

One of the most harmful habits I have observed among my people, is that of an unbalanced diet; either due to the fact that they are compelled to eat at a certain table, or because of ignorance as to what is right.

It has been no uncommon thing for me to find an inharmonious family snapping at each other like wild animals—without reason—to be all suffering from certain forms of blood-poisoning, from an unbalanced diet, which was speedily remedied by simply regulating the diet, thereby restoring peace and harmony in the household.

HABITS OF COOKING.

Many housewives have reminded me very much of an old-fashioned music box in regard to their cooking; they have a few tunes that they play until every one is sick.

It may be necessary to give our women a high school, or college education which at least 95 per cent of them will never use—but it seems that some time should be given to the consideration of food products, so she would be able to feed her family in such a way as to keep them in good health, and give them a proper mental equilibrium. When this subject is scientifically taught, our crop of neurotics, insane, and degenerates will begin to decrease.

The dictum, "that which a man is fed upon so shall he be," contains more truth than poetry and will repay study.

VARIATIONS OF HABIT.

Many of our chronic diseases are due to over-eating. In this case we have a cook who is unusually skillful, and prepares the food so that the appetite is tempted away beyond any legitimate requirement. This excess of waste throws additional work upon the emunctories—and they are constantly under a strain that gradually causes irritation and inflammation with a gradual loss in efficiency.

As time passes, the loss of balance causes waste to accumulate within the body, and some nervous symptoms are developed. The glands of the skin, trying to eliminate the excess waste, cause the skin to take on a yellowish or muddy hue. The sclerae of the eyes are usually dark from pigmented waste. The skin has a disagreeable odor from the acrid fatty acids that are eliminated.

The functions of the liver are inhibited by the excessive waste products, and gradually lose their efficiency, and as the bile deteriorates in quantity and quality, micro-organisms begin to flourish in the waste food in the colon, and various albuminous poisons and bacterial toxins are found in the bowels.

POISONS GENERATED IN BOWEL.

The number of these productions are limited only by the number of germs that can flourish in the intestinal secretions, and the natural immunity of the body. So many of these products have been isolated from the feces of a certain cases, and their effects studied physiologically, that it is a constant source of wonder how people can live under the conditions found. However, enough experimental data is at hand to prove that these poisons are destroyed by the liver, and just as long as this organ is efficient nothing serious happens; but any loss of function of this organ is followed by far-reaching consequences to the welfare of the body.

Special structures like the eyes, ears, nose, points, together with the internal glands, are seriously injured by these poisons. Certain forms of poisons derived from putrefying protein waste, by anerobic micro-organisms, cause neuralgia, rheumatism, and lay the foundation for pneumonia. Eventually the nervous and vascular system is affected and degenerative changes will take place.

SURGICAL SHOCK.

A. B. Cooke, Los Angeles (The Journal A. M. A., June 6, 1914), recommends Crile's method of anoci-association as a means of preventing inconveniences and dangers of surgical shock, and explains its principles and technic. The dangers of the quinine and urea hydrochlorid anesthesia are, in the light of his experience, purely imaginary. With reference to securing early bowel movements for preventing gas pains, which he has suggested as a fifth important step in the method, he says he has found its value in a long series of cases. It has been his regular plan to begin the administration of calomel in powder usually combined with ceriumoxalate, 1 grain of the latter to ½ grain of calomel, for from twenty-four to thirty-six hours after the operation and to repeat the dose every hour until six are taken. From four to six hours after the last dose, or sooner if indicated, a purgative enema is given, which generally inaugurates active peristalis. A few days or even hours saved the patient seem to him to justify this routine and render it highly desirable. He concludes by saying that if there were no more data than his own experience he would still consider anoci-association the most important surgical advance of the past quarter century.

HOW it FEELS to HAVE a SUBNORMAL TEMPERATURE

W. T. MARRS, M. D
Peoria, Ill.

Did you ever have a subnormal temperature? If you ever did you'll agree it's a funny feeling. Until I had the experience myself I very seldom thought of subnormal temperature and more seldom tried to find it. In this respect my attitude toward the matter was somewhat like that of the unsophisticated gent who gazed for the first time on a hippopotamus and then remarked, "There ain't no such an animal." I had about come to believe that when one's temperature took much of a toboggan he was about ready for his wooden overcoat.

About three years ago I came down with a cough, pain in my side over the tenth rib, loss of apeptite, anemia and a string of concomitant symptoms too numerous to mention. I ran a temperature every day and finally became so weak I had to give up and go to bed. Any other kind of a fool but a doctor would have given up much sooner than I did. I was good and sick for a couple of weeks, the coughs, night sweats and whole gamut of symptoms seeming typically like an acute tubercular infection. The sputum on the one examination made showed no tubercle bacili. No search was made for other "bugs."

I forced myself to take nourishment consisting of eggnog, raw eggs and milk, and later as the fever declined bacon and soft cooked eggs. I took no medicine except castor oil in orange juice and a little calomel and quinine. I took absolute rest, as the doctors advised me. I was so careful of my energy that I would turn over as few times as possible. In fact turning over was somewhat of a herculanean effort in my weakened state. The copious night sweating left me in a week or so. I kept a thermometer under my pillow and sucked it about twenty times a day until I quite got the thermometer habit.

I insisted upon seeing my mail, for I also have the mail habit and am lost without knowing what Uncle Sam is bringing me twice a day. I felt that I must have tuberculosis, for I certainly had a bunch of symptoms pointing toward it or something "just as good." I scanned the tuberculosis articles. Auto-suggestion came to my aid and I imagined I had all the symptoms. I read of the "lunger's" indifference to his own case, his reconciliation to his fate, etc., and I thought that was just the way I was beginning to feel. Medical men are certainly bad patients.

Well, to shorten the story, I was free from fever and able to sit up in about three weeks. Still I was weak and tottering and lacking in endurance. I felt in a light and buoyant attitude of mind and was entirely free from pain. It was about the time I began to sit up that I discovered a subnormal temperature in the forenoon. I naturally associated this symptom with tuberculosis, as that is one of the very earliest manifestations. Still I was improving every way, so had an innate feeling that I would come out winner in the end.

This temperature would be 96 or 97 in the morning and would gradually creep up to normal by sometime in the afternoon. No elevation followed it. I had no chill or paroxysm during this low temperature. It was a dull, listless, indifferent feeling with a slight coolness of the extremities and a lowered action of the heart and pulse. It would be hard to describe the mental state in any manner nearly accurate. I was not the least nervous, although I am of a highly neurotic temperament. In fact the feeling was rather the opposite of nervousness—one of repose

and calm. I felt rather "lifted up" from the earth and seemed rather to enjoy a state of delicious poise. This subnormal temperature lasted several days, even after I was walking about, then it left me. I have had no more symptoms of tuberculosis and, baring the occasional little acute troubles that come to the most of us, have ever since enjoyed uniformly good health.

About all I can say is that you feel a little "queer" when you have a subnormal temperature. Perhaps it is a condition occurring oftener than we think if we only take the pains to discover it.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 128 May Recorder)

BRUISES (CONTUSIONS).

As local antiseptics, the application of an oily mixture carrying distillate of shale tar or the antiseptic oil hitherto mentioned, or to relieve pain and act as a local stimulant the application of Camphor, grs. 20; Menthol, grs. 20; Liquid petrolatum, oz. 1. If there is severe pain, hot application with the hyoscine, morphine and cactoid, either internally or hypodermically, as indicated. To remove discoloration, paint skin with Tincture capsicum and cover small bruises with Benzoinated collodion. For inflammation,, Aconitine to effect, with saline laxative to purgation. To prevent infection, calcium sulphide and echinacoid, in full dose internally. As a prophylactic, to prevent suppuration either the Staphylo-Bacterin mixed or Combined-Bacterin (Van Cott). If suppuration occurs, the proper bacterin, as determined by bacteriologic investigation.

BUBO.

To prevent suppuration, if seen early, saturate with calcium sulphide. To enforce leucocytosis, nuclein solution in full dose hypodermically, with application of tincture iodine over affected area. The latter to be used to the extent of marked irritation of the skin. To control fever, aconitine, small doses by the mouth, at frequent intervals, to effect, keep the bowels active by the use of Blue mass and Soda, gr. 1 of each, and Iristoid, gr. 1-3, four to six half-hourly doses, every other night, followed in the morning with a saline carrying Colchicine. The patient should, obviously, be kept in bed. The toilet of the genitals, if infected, should be given attention, a thorough cleansing with Corrosive Sublimate, 1-1000, meeting the indications. If suppuraton occurs, apply Guaiacol and hot Kaolin paste to site of infection three times a day. Incise early and after pus is evacuated, pack with gauze saturated with a vegetable oil carrying 40 grs. of Thymoliodide to the ounce. At the appearance of suppuration give Strychnine arsenate, gr. 1-64; Quinine arsenate, gr. 1-32; Iron arsenate, gr. 1-32; Nuclein solution m 8; Iodized lme, gr. 1 (or Arsenous iodine), Prytolaccoid, Irisoid and Echinacoid, in full dose, every three hours. As a laxative, Washed sulphur, gr. 1-32; Strychnine arsenate, gr. 1-128; Podophyllin, gr. 1-64; Collinsonoid, gr. 1-128; Berberine, gr. 1-18, after meals, with saline laxatives on awakening in the morning. As an alternate to the above, the following may be employed to advantage in some cases: Calcium sulphide, gr. 1-6; Monobromated camphor, gr. 1-6; Hyoscyamine sulphate, gr. 1-6000; Methylene blue, gr. 1-6. To prevent or overcome suppuration the bacterins are frequently useful and indicated. As determined by bacteriologic test, the following may be exhibited: Gonoccoccus-Bac-

terin-Combined, Coli-Bacterin, Strep-to-Bacterin or Staphylo-Bacterin. In some instances only an autogenous bacterin is efficient.

CALCULI BILIARY.

While it is the opinion generally that surgical inference gives the only radical cure for gall-stones, still certain medicinal agents certainly have their place in the treatment of this condition. Within recent years Sodium succinate has been employed, with good results in numerous cases. Just how this remedy acts is not known, but that it has given relief and overcome the necessity for operation, has been proven. It is best given in 5 grain doses with Bolsine hydrobromide, gr. 1-32, one hour before meals, with Chionanthoid, gr. 1; Bilein, gr. ½ to 1-6, after meals for several weeks; then Eunymoid, gr. 1-6 and Quassoid, gr. ½, three times a day. Calomel, Podophyllin and Bilein every second or third night, followed by morning salines. Before meals, or every two to four hours, one of the two following are indicated: Sodium succinate, gr. 1; Podophyllin, gr. 1-12; Calomel, gr. 1-12; Boldine hydrobromide, gr. 1-64; Chionanthoid, gr. 1-6, with the following after meals, or more frequently if indicated: Chionanthoid, gr. 1-6; Irisoid, gr. 1-6; Ascepidoid, gr. 1-6; Colocynthin, gr. 1-100. The Sodium succinate, to be effective, must be continued over a considerable time, and in good dosage, as a rule. For colic, the Hyoscine, Morphine and Cactoid combination hypodermically, with Hyoscine hydrobromide, gr. 1-400; Morphine hydrobromide, gr. 1-16; Cactoid, gr. 1-128; Pilocarpine hydrochloride, gr. 1-16; Caffeine, gr. 1-32, by the moutr to maintain effect, at intervals of three or four hours. If these combinations are not at hand, Hyoscine hydrobromide hypodermically, or Hyoscyamine sulphate, gr. 1-1000 with Strychnine arsenate, gr. 1-64, by the mouth every fifteen to thirty minutes, to effect. As antispasmodics, Dioscoroid, Cannaboid, Gelseminine, or one of the following: Glonoin, gr. 1-250; Hyoscyamine sulphate, gr. 1-2000; Strychnine arsenate, gr. 1-128; or, Strychnine arsenate, gr. 1-128; Coniine hydrobromide, gr. 1-128; Hyoscyamine sulphate, gr. 1-2000; Digitalin, gr. 1-128. To completely relax, Lobeloid or Lobeline sulphate, pushed either to relaxation or nausea. The Hyoscine, Morphine and Cactoid combination, with enema of two to four ounces of olive oil, followed with three pints of normal salt solution, the patient in the knee-chest position. Olive oil has been "touted" as a cure, but it probably simply lubricates the passages and allows of the easier passage of the concretions. It may be employed to advantage for this purpose, as may be Glycerine. To stimulate hepatic function, Nitrohydrochloric acid with meals, 10 to 15 drops well diluted.

CALCULI, URINARY.

Test urine in every case, to determine character of stone. To increase the flow of urine and to prevent accumulation of uric acid, Calcium carbonate, grs. 10; Lithium carbonate, gr. 1; Colchicine, gr. 1-500, with aromatics. This dose with Arbutin, gr. 1, every four hours, with addition of Lithium benzoate, 2½ grs. if there is hyperacidity, or if alkaline, Ammonium benzoate in full dose to effect. As antiseptic, hexamethylenamine, either alone or in either of the following combinations, as indicated, when the urine is acid: Hexamethylenamine, grs. 5; Arbutin, gr. ½; Sodium benzoate, grs. 5; or if alkaline, Hexamethylenamine, grs. 3; Arbutin, gr. ½; Ammonium benzoate, grs. 3. For pain and spasm, incident to calculus in ureter, the Hyoscine, Morprine and Cactoid combination, hypodermically. By the mouth, Glonoin, gr. 1-250; Hyoscyamine sulphate, gr. 1-1000, and Strychnine

arsenate, gr. 1-128, acts well as an antispasmodic and to relieve pain. Hot applications, during colic, over the kidneys, groins and lower abdomen or either and antiseptic oil or epsom-salt solution, or both. Surgical interference if medical treatment does not avail.

CARDIALGIA (GASTRODYNIA).

An antiacid is one of the chief indications, which may be filled by the use of the following: Sodium bicarbonate, gr. 1; Sodium sulphocarbonate, gr. 1; Emetine hydrochloride, gr. 1-1000; Hydrastine hydrochloride, gr. 1-32; Berberine hydrochloride, gr. 1-32; Rheoid, gr. 1-6, with aromatics; or, Sodium bicarbonate, gr. 1; Sodium sudphocarbolate, gr. ½; Juglandoid, gr. 1-6; with aromatics, the dose of either, one every two or three hours with a few swallows of hot water; children proportionately, according to age; or, Cerium oxalate, gr. ¼; Bismuth subgallate, gr. ½; Sodium carbonate, gr. 1; Manganese dioxide, grs. 2, one or two every two to six hours. As sedatives the followning; Resorcin, gr. 1-40; Stovaine, gr. 1-50; Atropine sulphate, gr. 1-2500; Delphinine, crystal, gr. 1-1000; ;or, Hyoscyamine sulphate, gr. 1-2000; Monobromated camphor, gr. 1-64; Scuttellaroid, gr. 1-32; with Oil of Cajeput, Oil of Anise and Menthol q. s. To stimulate gastric and intestinal function, Hydrastoid or Juglandoid before meals with one of the following digestives after: Betain hydrochloride, grs. 2; Pepsin, gr. 1; Papain, gr. ½; or, Papain, gr. 1; Pepsin, gr. 1; Berberine hydrochloride, gr. 1-32; Strychnine arsenate, gr. 1-128. Where there is an excess of fatty acids, dilute hydrochloric acid with meals and a digestant after, as: Strychnine arsenate, gr. 1-128; Quassoid, gr. 1-64; Papain, gr. ½; or, Strychnine arsenate, gr. 1-128; Quassoid, gr. 1-64; Papain, gr. 1-32; Juglandoid, gr. 1-6; or, Strychnine arsenate, gr. 1-128; Quassoid, gr. 1-64; Papain, gr. ½; Juglandoid, gr. ⅛. Correct errors in diet and advise exercise. The sodium and xanthoxyloid compound is frequently efficient in these cases of hyperacidity, full doses at night, digestants with meals and saline laxative in the morning.

CATARRH, NASAL—ACUTE CORYZA.

To abort, Atropine sulphate, gr. 1-1500; Aconitine hydrobromide, gr. 1-3000; Morphine sulphate ,gr. 1-100; Calomel, gr. 1-10; or, Atropine sulphate, gr. 1-1000; Aconitine hydrobromide, gr. 1-3000; Codeine sulphate, gr. 1-64; Quinine arsenate, gr. 1-32; or, Camphor, gr. 1-5; Quinine sulphate, gr. 1-5; Atropine sulphate, gr. 1-500. One of either every hour or two until atropine effect, slight dryness of mouth and throat, is obtained. Or the following laxative combination; Quinine hydrobromide, gr. 1; Acetanilid, gr. 1; Gelsemoid, gr. 1-50; Aloin, gr. 1-10; Podophyllin, gr. 1-20, one every two hours till the fever abates, with Iodized lime, gr. 1-3 to 1, and Nuclein solution, m 4 to 8, alternating half way between. The nares should be cleaned out with a mild, alkaline antiseptic solution and then sprayed with an antiseptic oil. Elimination stimulated with Calomel, Podophyllin and Bilein, followed by saline. After control of acute symptoms Nuclein solution m 4 to 10, on tongue every two or three hours, with Quinine arsenate, gr. 1-64; Strychnine arsenate, gr. 1-64; and Digitalin, gr. 1-64 every four hours. The bowels should be kept active in that toxins may be thus eliminated. Either of the following may be indicated: Calomel, gr. 1-6; Podophyllin, gr. 1-6; Bilein, gr. ⅛; Strychnine arsenate, gr. 1-250; or, Calomel, gr. 1-12; Podophyllin, gr. 1-12; Bilein, gr. ½; Strychnine arsenate, gr. 1-500; or, Phenolthalein, grs. 1½; Senna, grs. 1½; Sulphur, gr. 2-3, with aromatics q. s.; or, Cascara Compound (Hinkle), or such other laxative

as meet the indications. In plethora it is well to add Colchinine to the treatment. If the pharynx is involved, either Calcidin, gr. 1; Mercuric iodide, gr. 1-64; Strychnine arsenate, gr. 1-128; Phytoloccoid, gr. 1-6; Nuclein solution m 2, or Potassium dichromate is the indicated remedy. Quinine ferrocyanide, Codeine sulphate, Pilocarpine nitrate and other agents, too numerous to mention, have their indications. In severe cases, or those becoming chronic the bacterins are frequently indicated, as per bacteriologic test. The Combined-Bacterin (Van Cott) or the Pneumo-Bacterin-Combined, 10,000,000 to 50,000,000, every four to eight hours for twenty-four hours and then increased dose every six to eight days.

CATARRH, CHRONIC NASAL.

Always look to the cause. Very frequently the patient has autotoxemia. Push elimination. If the Harrower Acidimeter shows high urinary acidity push the sodium and xanthoxyloid compound to full effect. Clear out and clean up the bowels with calomel and podophyllin, followed by saline laxative. Look to the toilet of the nares. Clean off surfaces with mild, alkaline antiseptic and follow with antiseptic oil or ointment at night. As a local anesthetic a three per cent solution of Stovaine, with or without a Suprarenal extract. To enforce functional activity, Hydrastoid, Helenin and Sanguinarine nitrate. As alteratives, Iodized lime, Arsenous iodide and Collinsenoid, and in protracted, severe cases, Liquor Arsenii Comp. (Barclay) the latter in small dose, with caution. Among the vaccines which are indicated, as per bacteriologic test, are the Friedlander-Bacterin, Combined-Bacterin (Van Cott) and Pneumo-Bacterin Combined. The first mentioned very frequently acts as a synergist to the treatment enumerated above.

CEREBRAL ANEMIA.

For immediate effect, to dilate vessels and carry more blood to the brain, Glonoin, gr. 1-500 to 1-250 every ten or fifteen minutes. As a corrective, Cactoid, gr. 1-64; Strychnine arsenate, gr. 1-128; or, Strychnine sulphate, gr. 1-128, and Digitalin, gr. 1-64 before meals and at bedtime. With meals to enrich blood, Defibrinated blood m 30; Manganes peptonate, gr. ½; Iron peptonate, gr. 1; Nuclein solution m 5, with glycerine, sherry wine, salt and alcohol, q. s. to make a dessertspoonful. The heart tonics, Cactoid and Digipoten, three times a day, with the Arsenates of iron, quinine and strychnine, with Nuclein after meals, have their indications and are frequently satisfactory agents. Neuro-lecithin, when nerve force is below par. To equalize the circulation of the old, one or two of Aconitine hydrobromide, gr. 1-800; Digitalin, gr. 1-64; Strychnine arsenate, gr. 1-128, morning, noon and night, with Cactoid between meals, in doses to effect. Look to elimination and see that the digestive function is normal.

CHICKEN POX (VARICELLA).

A clear, clean bowel is imperative in all infections. The indications are met by the use of Calomel with aromatics, gr. 1-10; Podophyllin, gr. 1-64; Irisoid, gr. 1-66, half hourly for three to six doses at night, followed next morning with saline laxative to effect. Calcium sulphide, to saturation, is indicated to overcome infection. To induce leucocytosis, Nuclein solution, drops two to five, three or four times a day. To control temperature, Aconitine hydrobromide; or Digitalin, gr. 1-250; Veratrine hydrochloride, gr. 1-500. Locally a soothing ointment, one carrying Phenol by preference. Gelseminine may replace or alternate with Aconitine. The kidneys should be stimulated by Asparagin, Barasmoid, Arbutin or other diuretics. Gelseminine is the indicated remedy when the face is hot and flushed. During convalescence the Arsenates of iron, quinine and strychnine with Nuclein.

CHLOROSOS.

Tonics and those agents which will improve the nutrition and increase the appetite are indicated, and are those which will enrich the blood. As a tonic the arsenates of iron, quinine and Strychnine, two after each meal with peptonate, gr. ½; Iron peptonate, gr. 1; Nuclein solution m 5, with glycerine, sherry wine, salt and alcohol, q. s. to take one dessertspoonful with meals to improve blood quality, and Quassoid or Juglandoid before meals to overcome anorexia. As the bowels are usually sluggish, the salines as well as Phenolphthalein, grs. 1½; Senna, grs. 1½; Sulphur, gr. 2-3, with aromatics, q. s.; or, Cascaroid, gr. 1-6; Strychnine sulphate, gr. 1-128; Leptandroid, gr. 1-12; Emetoid, gr. 1-64; Phenolphthalein, gr. ½; or, the Cascara Compound (Hinkle), are frequently indicated. If the liver is inactive, stimulate with Calomel, Podophyllin, Euoymoid, Aloin, Leptandroid or other hepatic stimulant. Berberine hydrochloride if there is involvement of the spleen. Liquor Arsenii Comp. (Barclay) should have its indication, as Arsenic is recognized as a blood builder. Hypodermic injections of Iron cacodylate are likewise apparently indicated. With phosporous insufficiency, or where nerve force is below par, Neuro-lecithin meets the indication. If there is lack of lime, Calcium lactophosphate or Iodized lime meet the indication. Potassium permanganate , Iron phosphate, Blaud's mass, as well as numerous other Iron combinations have their indications. For palpitation, Cactoid. If there is dysmenorrhea, Caffeine, Iron arsenate or Phosphate and Colocynthin. Look for sexual perversions as a cause. Teach the patient how to live properly, breathe right, and see that the diet is highly nutritious and assimilable. The patient should live in the open as much as possible.

CHOLANGITIS—CHOLECYSTITIS.

Clear intestine with Calomel and Podophyllin, followed by saline. To relieve spasm, the Hyoscine, Morphine and Cactoid combination, hypodermically, or a modification thereof by the mouth, or Lobeline to full relaxation. For gastric irritability Resorcin, gr. 1-40; Stovaine, gr. 1-50; Atropine sulphate, gr. 1-2500; Delphinine, crystal, gr. 1-1000. To reinforce leucocytes and increase resistance, Nuclein solution freely, with Calcium sulphide as a systemic antiseptic, and Salicylic acid every four hours to prevent extension of inflammation. Bilein to increase flow of bile and Chionanthoid, Euonymoid and Leptandroid to stimulate hepatic function. Invariably keep the bowel clean with the sulphocarbolates. If suppuration occurs, prompt surgical interference. The bacterins should be indicated in such cases.

CHOLERA, ASIATIC.

Immediately, with first appearance of diarrhea, Morphine or the Hyoscine, Morprine and Cactoid combination, in full dose hypodermically, with Oleoresin capsicum, Piperine, Monobronated camphor or Chlorodyne internally to maintain effect. Feed with albumin water, boiled or peptonized milk, clam bouillon or other concentrated food. Normal salt solution thrown into rectum and body heat retained by hot applications. Zinc sulphocarbolate or the combined sulphocarbolates should be pushed to full effect. In severe cases the patient should be placed in full, hot mustard bath and given high enemas of hot (100° F.) decinormal salt solution, slowly, with Glonoin, Quinine arsenate and Oleoresin capsicum by the mouth every two or three hours. Salt solution by hypodermoclysis, should be given, if necessary to maintain vitality during critical stage. With collapse and rice water stools. Atropine sulphate hypodermically, gr. 1-100, and repeated in an hour, to

bring the blood to the surfaces, is the indicated remedy. Atropine should be used early and to effect. Do not give morphine in this stage. To support heart, wtih large doses of Strychnine and Quinine arsenates to promote reaction, if required. To induce leucocytosis, large doses of Nuclein solution on the tongue. To stimulate the kidneys and render the blood fluid, barley water with fruit juices. With improvement nourish freely and give the Arsenates of iron, quinine and strychnine with nuclein, cactoid and neurolecithin. Care should be taken to disinfect all evacuations and the attendant should see that his or her hands are absolutely clean. If possible, remove the patient daily to a room which has been freshly disinfected with Formaldehyde.

CHOLERA INFANTUM.

To relieve spasm, Hyoscyamine, gr. 1-1000, or Atropine, gr. 1-1000; or the following: Hyoscyamine sulphate, gr. 1-2000; Monobromated camphor, gr. 1-64; Scutellaroid, gr. 1-32; Oil of Cajuput, with Oil of Anise and Menthol, one-sixth to one-third tablet in solution immediately and repeated every half hour to effect, reaction and warmtr. Place patient in warm Epsom-salt (one ounce to the quart) bath and increase temperature of water until reaction is apparent. Throw one ounce of olive oil with two drops of Turpentine into rectum and follow slowly with a pint of warm decinormal salt solution. Retain this by pressure over anus. After this is voided, pass high into the colon from a half to two pints of a solution of the sulphocarbolates, 40 grains to the pint, this solution to be body temperature. Dry thoroughly, wrap in flannel and with hot water bottle and place patient where he will get plenty of fresh air. This usually controls vomiting and cramps. To clear intestinal tract, Calomel, 1-20 to 1-10 gr. every fifteen minutes to an hour. For persistent vomiting, Atropine or Hyoscyamine, repeated until skin reddens slightly, and maintain for hous. Follow calomel with the combined Sulphocarbolates, gr. 1-3 to 1, or Zinc sulphocarbolate if there is much diarrrea, or Copper arsenite, gr. 1-1000, or Copper sulphocabolate, gr. 1-64, at hourly intervals. If the stools exceed six within twenty-four hours, the following: Zinc sulphocarbolate, gr. 1-40; Monobromate camphor, gr. 1-40; Copper arsenate, gr. 1-5000; Morphine sulphate, gr. 1-1000; Atropine sulphate, gr. 1-10,000; Aconitine hydrobromide, gr. 1-10,000; Strychnine arsenate, gr. 1-2000, one every ten minutes to effect and then one every 30 to 60 minutes to maintain. No milk for the first 24 hours. Diet to consist of albumin water, barley water, plain boiled water, fresh beef juice or the defibrinated blood ,combination hitherto mentioned. The addition of the Bacillus Bulgaricus is usually indicated, as this acts to inhibit the pathogenic bacteria within the bowel. When the B. Bulgaricus is given milk need not be withheld as long. Nuclein solution, 5 to 10 drops three or four times a day on the tongue to reinforce tre leucocytes; Glonoin to assist in bringing about reaction and aconitine for the fever. Caffeine as a heart tonic meets the indication in children. Diastase, Papain, Rheoid, Bismuth subgallate, the anodyne for infants and Emetoid may have their indications. During convalescence, Brucine and Hydrastoid for a few days.

CHOLERA MORBUS.

The preliminary indications are to clear the bowel and relieve spasm. Small doses of Calomel and Podophyllin (or Jalapoid) with Bilein, frequently repeated, followed by saline laxative to effect. To control spasm and pan, a modification of the Hyoscine, Morphine and Cactoid compound, with Capsicoin, or Chlorodyne. A half

strength Hyoscine, Morphine and Cactoid tablet, hypodermically, may be required for pain. Wash out bowel with pint of warm salt water and then throw high up, a solution of the Sulphocarbolates, 40 grs. to the pint, and a pint or more; Codeine sulphate, gr. ¼; Hyoscyamine sulphate, gr. 1-1000; Styrchnine sulphate, gr. 1-128, with an additional 1-128 gr. of Strychnine. every two to four hours, and Hyoscyamine and Strychnine as alternates. As the patient improves, drop the Zinc and codeine combination and rely upon the suphocarbolates, 10 to 20 grains every three hours. To increase vitality, Nuclein solution, 10 to 20 drops, hypodermically, three times a day. No food for twenty-four hours and then only that of light character. The B. Bulgaricus is indicated in this condition, as in cholera infantum and for same reason. Copper sulphocarbolate is now being employed with good success as intestinal antiseptic and should be indicated as such in this condition. With improvement established, Strychnine or Brucine should be given three times a day and Juglandoid before meals. One of the digestive compounds may be needed for a time after meals. Emetoid, Resorcin, Veratrine, Creosote carbonate, Monobronated camphor as well as several other agents are said to have indications.

CHOREA.

In this condition, sedation, with a moderate amount of exercise for the muscles, and agents which give added nerve force, are the indications. Veratrine, gr. 1-256 or 1-512, at intervals of every two hours to sedation, with Codeine in every small dose if nausea is present. The latter should not be employed excepting in this special condition. Before meals, Scutellaroid, 1-3 gr. as an antispasmodic: Macratoid, gr. 1-6 as a motor excitant and antispasmodic; Avenin, gr. ½, as a general stimulant and tonic, and Juglandoid, gr. 1-6, to stimulate bowel and gastric function. Follow meals with Zinc phosphate, gr. 1-64, or Iron phosphate, Calcium phosphate, Potassum phosphate and Magnesium phosphate, of each gr. ½, with Nuclein solutoin m 4. Either to increase the nerve tone. Picrotoxin, to remedial or physiologic effect, followed by coniine, as a special sedative, gr. 1-64 every four hours for several days. As an alterative, Liquor Arsenii Comp. (Barclay) is indicated for prolonged administration, care being taken to look for arsenic effect. To stop habit-spasm in older patients, Atropine valerate, alternated with Cannaboid or Solanine, dose to effect. With this stopped, the arsenates of Iron, Quinine and Strychnine with Nuclein, after each meal for over a considerable time; not less than a month. As sedatives and antispasmodics, Scutellarin and Solanine with Avenin between meals, have their indications in certain cases. The combinatoin of Gold bromide, gr. 1-250; Arsenous bromide, gr. 1-250; Nickel bromide, gr. 1-6, and Strychnine valerate, gr. 1-128, or, Gelseminine, Arsenous bromide, cypripedoid, Lobeloid, Zinc cyanide, or Monobromated camphor may act well as nerve sedatives in selected cases. The diet should be plain and nutritius. There should be a moderate amount of rhythmic exercise, at frequent intervals, with salt sponge baths, massage or vibration to spine and limbs daily. The child should be treated kindly, but with firmness. change of scene, particularly a life close to nature in the wilds, will be very effective in restoring the nervous equilibrium. The patient should never be petted, or have attention called to the condition.

(To be Continued.)

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The pulmonary tuberculosis of diabetes is insidious, rapidly fatal, with deep sepsis and enormous wasting of the body.

AMERICAN LIFE CONVENTION

French Lick, Indiana. Fourth Mid Year Meeting, March 4-5, 1914.

Dr. Wililam J. Mayo, Rochester, Minn., Dr. Robert H. Babcock, Chicago, the heart and lung specialist of world-wide reputation, Dr. Charles L. Mix, Professor Physical Diagnosis, Northwestern University School of Medicine, Dr. Wyeth E. Bey, New York and Dr. Amand Ravold, St. Louis, were a few of the eminent medical men who rendered the fourth mid-year meeting of the Medical Section of the American Life Convention, held at French Lick Springs, Indiana, "The Home of Pluto," the most notable meeting in the history of the organization. Medical directors were present from all parts of the country, and about forty of them were accompanied by their wives. The weather conditions were delightful and the visitors found great pleasure in the beautiful walks and drives that abound among the famous hills of the southern Ohio river district. Dr. Mayo and wife remained at the resort for a weeks' rest, and several other directors stayed over.

The papers of Drs. Mayo and Babcock were the big features of the meeting. Dr. Mayo discussed "Surgery in Relation to Life Insurance." He stated that overweights are not favorable operative risks, and he predicted the time when insurance companies, as an economic measure, will recommend operation. Reviewing cancer causes in various nations, notably India, he showed that chronic irritation is the most common precursor of cancer, and that ulcer of the stomach, gall stones and many other irritative conditions in the gastro-intestinal tract are thus a direct cancer menace to the patient. So true is this that the removal of foci of chronic irritation is the only known prophylaxis for cancer.

Dr. Babcock who is regarded as one of the scientific marvels of the country, was the center of interest. He has been totally blind since early boyhood, but in spite of this apparently insurmountable handicap, had made his name known as one of the world's greatest specialists in heart and lungs. His subject was "Prognosis of Cardiac Disease, with Special Reference to Life Insurance." "The handling of this subject is exceedingly difficult," said the speaker, "because the statement of the prognosis in any given case is a delicate matter dependent on conditions both inside and outside the heart and blood vessels." And because the life insurance examiner must report to his medical director each case according to the physical findings, the home office being guided accordingly." He then took up in detail the discussion of the gravity and forecast of the various chronic diseases of the heart. It is the custom to reject or rate up applicants who present evidence of a valvular heart lesion —namely a murmur. But there are many other additional factors which should be considered before the onus of a rejection is placed on the applicant. A murmur may be heard in a sound heart and conversely a diseased heart may not show this sign.

He prophesied that at some remote day we may be able to detect degenerative changes in the heart muscle long before such findings could be detected by present methods of diagnosis. And this may prove of incalculable value, not only in protecting life insurance companies against impaired risks, but also in the saving of myriads of human lives by early diagnosis.

Dr. Amand Ravold's report of the use of Salvarsan or 606 in ninety-two cases which he had under constant observation for a period of three years was of distinct value. His conclusion was that while valuable in primary

cases it was not so effective in advanced cases. He, however, regarded it as a valuable addition to medicine, when used properly as it rendered the patient harmless to society. Of the ninety-two cases under treatment, twenty were discharged as cured.

From an insurance standpoint syphilis is considered incurable owing to the prolonged and oftentimes brutal treatment, the astonishing indifference of those afflicted and their unfaithfulness to treatment.

Other disease practically barred by insurance companies are heart affections and goitre.

DIET and PERSONAL BEAUTY

J. L. WOLEE, M. D.
Cedar Falls, Iowa

Of what does personal beauty consist? What are its chief elements? We are not able it may be said, to add to or take from our stature, we cannot alter the contour of head and face, and cannot train features to beauty or form. These objections are perfectly valid.

At this period of the world's history after the great fusion of races or at least tribes which have taken place in Europe and other places, we can not expect to find the ideal purity of features which distinguished the nations of classical antiquity and especially the Greeks. Perfect regularity of features or facial beauty from an absolutely artistic point of view, we do not look for, scarcely even desire in people. That which adorns man is the stamp of intellect and strength set upon his face. Beauty in the male chiefly consists of a well developed form and an expressive countenance, emotionally active facial muscles perpetually responding to the impulse of an active mind, give interest, variety and in a sense, beauty to features, otherwise of an ordinary type. That intellectual pursuits bestow dignity and distinction upon the human countenance, is a noticeable fact wherever we go. When we speak of personal beauty, it is especially of women that we speak. In woman a rounded outline, grace of movement, delicacy and regularity of features, fairness of skin, gloss and luxuriance of hair, carry beauty to perfection. Yet, even in the fair sex the charmed beholder seldom pauses or cares to pause to criticize the form of features amenated with ever varying expression. Beauty resides in the pure skin, sparkling eye, healthy bloom pearly teeth and intelligent expression. And these are not fortuitous possessions.

Disregarding for the present the influence of heredity, we may confidently assert that the essential attributes of beauty depend to a very great extent upon proper food or more strictly upon good digestion. For as I stated before food though abundant and nutritious may be so poorly prepared that the appetite is not excited, the palate pleased, or digestion thoroughly performed.

Perfect development depends upon perfect nutrition. It is certain that nutrition cannot be perfect, unless the digestive apparatus properly performs its functions. If the normal proportion of acid and ferment are not present a haggard anxious look replaces the one of good health. Irregularity of features which was scarcely noticed when the eye was bright and sparkling, the skin pure and the complexion brilliant, now becomes painfully apparent.

It is doubtless true that woman is not to be prized solely for her beauty. Nevertheless her beauty must always be a magnetic charm and is justly regarded by herself as a valued posses-

sion, and it is a sign of these other virtues that produce it.

Our American women are apt to fade easily, because they are more apt to neglect the laws of health in many ways. Women as well as men, participate in and are injured by the great competition and ambitious struggles of our social and commercial life. Among the wealthy the whirl of society, late hours, rich food, and neglect of physical exercise, breed indigestion and its attendant ills, and art is called upon in vain to repair or cancel wrongs due to defiance of natural laws. In the poor or middle classes coarse or insufficient or badly cooked food eaten hastily without appetite and with an anxious preoccupied mind transforms the pretty bride too soon into the thin and careworn mother and household drudge.

COD LIVER OIL

J. A. BURNETT, M. D.
Hartshorne, Okla.

Cod liver oil, oleum morrhuae, is a fixed oil obtained from the fresh livers of cod fish. Gadus morhua species of Gadus but the one named is the chief source of supply.

Various chemists have examined cod liver oil and various constituents are claimed to have been found. Porter says:

"It contains the fixed bases aselline etc., also traces of iodine and bromine the ordinary inorganic salts of animal tissue and products and perhaps bile constituents." Hare says:

"The most prominent constituents of the oil are iodine, bromine, sulphuric and phosphuric acids. It also contains more or less of the bilary salts."

Cod liver oil is very slightly acid in reaction. Specific gravity 0,918 to 0.922 at 25° C. (77° F.) Soluble in chloroform ether and carbon disulphide. It is a pale yellow or dark (according to the degree from foreign material) thin liquid having a slightly fishy odor and taste. According to the U. S. P. four drachms of cod liver oil is the average dose.

Chronic rheumatism especially largely muscular can be benefited by the use of cod liver oil. This oil acts as a tonic by maintaining the patient's strength and general nutrition. In tuberculosis cod liver oil is of value when given internally if it is tolerated and digested.

In a case of any kind when it nauseates, produces vomiting or oily diarrhoea through failure of assimilation it should not be given internally but used externally. Hare says:

"It aids in the maintenance of bodily temperature by its oxidation and causes a deposit of fat in the tissues. The oil also seems to influence the blood directly, for clinical observation shows that anemic persons become healthy looking under its use and Cutler and Bradford have found that this apparent improvement is a physiological fact by the use of Malassez's blood call counting apparatus the red corpuscles being always increased."

Cod liver oil has produced good results in strumous skin lesions depending upon scrofula and anemia enlargement of the lymphatic glands, chronic bronchitis, artheroma of the arteries, strumous ophthalmia, advanced syphilis, rickets, chorea, sciatica, lumbago, neuralgia, emphysema of the lungs and convalescence from acute diseases as well as in various other diseased conditions.

"Cod liver oil may be substituted for olive oil in relieving dysphagia of chronic laryngitis." ("A Handbook of Local Therapeutics" edited by Harrison Allen, 1897.")

ELECTRO-THERAPEUTICS

H. C. BENNETT, M. D.
Lima, Ohio.

NUMBER AND CHOICE OF TUBES.

We have for years dwelt on the advantages to be derived from having a good big supply of X-ray tubes on hand, and in use.

We have felt at times, and we have been accused as well, that our friends and customers would think it was entirely from our own standpoint that we were speaking. On the contrary, we were speaking for your benefit, for the more tubes you keep in use, the fewer you will buy in the end, for a tube worked easily will last for a long time, whereas if a tube is overworked, its life is short.

It gives us great pleasure to quote from an article in Modern Hospital, January issue, page 41, by Dr. E. W. Caldwell.

"The X-ray tubes are perhaps the most essential and the most important part of the equipment. Without good tubes it is impossiblbe to obtain good work. It is desirable to have at least ten or fifteen good tubes, and to keep this number by replacing every tube as soon as it is broken or worn out. This makes it possible to select for different kinds of work the tubes which are most suitable. The practice will prove an economy in the long run because the life of the X-ray tubes is much longer when they are not overworked.

"It will be found a great convenience to adopt some standard and stick to it rather than to assemble a varied collection of tubes of different styles, makes, and sizes. For most work I prefer tubes with seven inch bulbs, provided with heavy copper targets and tungsten buttons at the focus point.

"Uniformity is desirable not only in the size of tubes, but in the type of regulator with which they are supplied. Two types of regulators may be considered. The spark regulator, which has been in common use for many years is perhaps the most popular and the most reliable. Recently the mercury seal air regulator of D. MacFarland-Moore has been brought to a practical degree of efficiency for X-ray tubes by Heinz-Bauer, Baker, and others. The osmo regulator is less convenient than either of the two mentioned, though it is still used by a few makers. The best American-made tubes are much superior to those made abroad.

We wish to again dwell upon the danger of burning with the X-rays and the ease by which it can be obviated, providing due precautions are taken. In the Journal of the American Medical Association, January 17 number, Dr. G. E. Pfahler of Philadelphia has written a very pertinent article en- "Present Day Dangers of Roentgen Rays and How to Prevent Them," which should be read by every X-ray worker in full: and from which the following is extracted.

"How to Avoid Roentgent Burns During Examinations."

"In the avoidance of burns one must first keep in mind the principles governing the cause of the burns:

"1. To use as small a quantity of rays as is consistent with the examination.

"2. To use a quality of rays that will penetrate the tissues, and not be entirely absorbed by the soft tissues.

One can learn to judge the penetration by frequent use of the penetrometer and by the making of many roentgenograms.

"3. To make every examination as short as is possible, thereby lessening the total amount of rays to be absorbed.

"4. To use intensifying screens when practicable.

"5. To use filters for the elimination of the softer rays.

"6. To confine the rays to the part actually under examination.

"Burns of the operator may be avoided: (1) by keeping entirely out of the field of rays, by working from an adjoining room with lead-lined walls between, or by the use of lead-lined cabinets; (2) by confining the rays about the tube so that the only way of exit is through the aperture made for the examination of the patient; (3) by means of protecting shields, aprons, gloves, masks, etc. In fact, all these should be combined.

"Burns during Roentgen therapy may be avoided; (1) by following the same general principles referred to in diagnosis; (2) by measuring each dose given and never exceeding the limit of skin toleration as indicated by the dose meter; (3) by allowing an interval of three weeks between the repetitions of the dose on any particular area of skin; (4) by the use of more filtration than would be used in diagnostic work; (5) by keeping in mind that epithelium and glandular tissue are more sensitive than other tissue to the rays; (6) by avoiding any other form of irritation on the skin treated, such as counter-irritation, high frequency currents, liniments, stimulating ointments, antiseptics, etc.

"The details necessary in carrying out the foregoing principles will vary with the individual operator and his circumstances, but they should receive the most careful attention. I believe that roentgenology is more distinctly a specialty than any other, because to master it one must be a good physician, must have a good general knowledge of pathology both in general medicine and the specialties, must have a large equipment, must give much time to the mastery of details, and must always be cautious."

The moral is obvious: use precaution. Know what you are doing, and do not think that because you use small apparatus precaution is unnecessary, for such is absolutely not the case."

MISCELLANEOUS

A FEW POINTERS FROM FOREIGN LANDS.

By Wm. F. Waugh, M. D., Chicago, Ill.

Let Apollo be honored with two crowns; one because he is the god of medicine and diagnosis is an important province of his kingdom, the other because he is the sun himself—that is to say one of the most important curers that humanity can know, and from which she can hope the cessation of innumerable ills.—Le Monde Medical.

Eczema is being successfully treated by application of coal tar. All scales and grease must be removed first. If the surface is strongly injected, silver nitrate (1 to 15) is then applied, or methylene blue of the same strength. Then apply the tar, and powder with tale. Protect the clothes by covering of gauze or fine linen. After 24 to 48 hours examine the part. If the tar is detached in large flakes, the skin red or excoriated, remove the silver, etc. If not, apply tar again, 48 hours after the first coat. A week usually suffices. —Thiberge Le Monde Medical.

Chlorosis—Iron iodite, cascara sagrada, aa 0.10; ext. gentian 0.05. For one pill. Take two to five daily.—Leyon, Fermulaire Astier.

Amoebic Infection—A sailor on the French canals, who had never been out of France, died of amoebic dysenterey

and hepatic abscess. This case shows that the malady, brought back by those returning from the colonies, is being domiciled in France. Commenting on the case, Le Monde Medical says: "It is happy that this disquieting discovery coincides with that of the therapeutic qualities, so decided, of emetine hydrochloride. We may at once denounce the peril and place its remedy beside the evil."

Arterioselerosis—Should we allow the arterioselerosis victim to drink water freely? Ambeard discusses the question and concludes: "The fear of oedema and arterial hypertension should not be an obstacle to the rational treatment of arterioselorosis by diuretic hydromineral cures. However paradoxic it may appear, this cure constitutes, on the contrary, the best treatment of this oedema and hypertension; but on the condition of being prescribed in time. When the relation of the maximum tension to the minimum is sufficient and the pressure variable, elevated, or at least normal, denote a ventricular contraction sufficiently energetic.—Le Monde Medical.

That the mortality from tuberculosis is in reality under direct dependence upon alcohol is one of those fundamental truths, one of those classic axioms, which are no longer discussed before the medical public. The question has been adjudged long since, and the judgment has been thus formulated by one of our most esteemed masters: "Alcohol makes the bed for tuberculosis."—Ribot, Paris Medical, 14 Mars, 1914.

Emetine in Pneumonia—Renon states that emetine hydrochloride in doses of 0.02 to 0.06 subcetaneously has no specific action in pneumonia. The duration of the malady is not abridged by this drug, but the fever falls often by lysis, the dysponea diminishes, and subcrepitant rales rapidly replace the souffle. In broncho-pneumonia the effect is distinctly favorable. With old patients, in grave cases, under the influence of 4 to 6 centigrams of emetine one sees the same evidences of improvement, and the sputa become very rapidly more abundant and better aerated. The favorable action of emetine in these affections is much superior to that following the old employment of ipecac.—Paris Medical.

Acute Prostatitis—Ext belladonna, 0.30 grains; Pulv. castor, 2 grains; Pulv. camphor, 4 grains; Magnesia calc., q. s. Divide in 30 pills. Three or four a day, to combat the constipation of persons with acute prostatitis. —Ricard, Paris Medical.

Camphor, 0.50 grain; Ext. opium, 0.5 grain; yolk of an egg; Distilled water, 200 grains. For an enema.—Langlebert, Paris Medical.

Essential Insomnia—Camphor bromide, 0.50 grain; Powd. valerian, 0.05 grain; Veronal, 0.25 grain. Take on retiring in cachet.—Docq, Paris Medical.

Emetine—This alkaloid causes diminution of the amplitude and frequency of the ventricular systole, arrhythenia and arrest of the heart in diastole, according to Monlinier. This corresponds close to the action of muscarine as determined by Trendelenberg.—Paris Medical.

Soda Cinnamate—Schmitt praises this agent as an intestinal antiseptic when used in enemas. In anemias he uses the cinnamate of iron as a general tonic and to promote leucocytisis.

Despite her outcry anent depopulation, France has 45 families who number 18 children or more. On the other hand she has 1,805,744 barren families. In addition—

2,967,571 families have one child each.

2,661,978 families have 2 children each.

1,643,425 families have 3 children each.

987,392 families have 4 children each.

556,768 families have 5 children each.

327,241 families have 6 children each.

182,998 families have 7 children each.

94,729 families have 8 children each.

44,728 families have 9 children each.

20,639 families have 10 children each.

8,305 families have 11 children each.

3,508 families have 12 children each.

1,437 familes have 13 children each.

544 families have 14 children each.

249 families have 15 children each.

79 families have 16 children each.

34 families have 17 children each.—Paris Medical.

Great Britain's mines kill 1,250 men and injure 160,000 more every year. One man is killed for every 200,000 tons of coal mined, and one hurt for every 1,800 tons.

Psoriasis—Hexheimer and Koester gave a patient pilocarpine to relieve the itching of psoriasis. Not only did the itching cease, but after the sixth injection of 0.01 grain the eruption had almost completely disappeared. This was a case of 12 years' standing, the disease affecting the entire skin excepting the face, palms and soles. In another case, of para psoriasis affecting the whole body, 18 injections accomplished the cure.—Berlin Klin. Wock.

In the itching of jaundice, pilocarpine is believed to cure by forcing out of the skin the toxins that induce irritation. Applying this hypothesis to the above cases, we suggest that the cause of psoriasis is the presence of some toxic substances usually eliminated by other channels than the skin. The examination of the serum in these cases seems to have been limited to testing for albumin and sugar.

SEROBACTERINS (SENSITIZED BACTERIAL VACCINES).

Serobacterin is the Mulford name for sensitized bacterial vaccines, a new and improved form of bacterin possessing certain important advantages over the ordinary product.

HOW SEROBACTERINS ARE PREPARED.

Let us take Typho-serobacterin as an example. The first step is the production of an immune typhoid serum. Goats are used for this purpose. The reason for not using horses is that there may be a possiblity of making persons treated hypersensitive, so that subsequent doses of horse serum might produce a severe reaction. Sensitization of this kind may be regarded as a laboratory curiosity, but in order to be absolutely on the safe side we are employing goats exclusively for the production of serum to be used in the manufacture of Serobacterins, as goat serum will not sensitize to horse serum. The goats are injected at stated intervals with typhoid bacilli until laboratory tests show a large amount of typhoid antibodies present in the blood. The animals are then bled and the blood serum is separated from the blood clot. The latter is discarded, the serum alone being employed. The serum from the goat is really an anti-typhoid curative serum. In other words, it is a serum containing antibodies for the typhoid bacillus. (By antibodies is meant simply those substances in the serum which destroy or prevent the growth of bacteria.)

It is the antibodies which constitute the part of immune serum used in the preparation of the Serobacterins. After procuring a proper serum the next

procedure is to combine the antibodies it contains with killed bacilli. To accomplish this, the bacilli are mixed with a suitable quantity of the serum and the mixture allowed to stand at laboratory temperature, with frequent shaking, for 24 hours. During this time the antibodies attach themselves to the typhoid bacilli permanently. The bacteria together with the attached antibodies, are then removed from the serum by centrifugation. The centrifuge is an apparatus in which tubes containing substances to be separated are whirled around with great speed, the heavier substances settling to the bottom of the tube. The typhoid bacilli being heavier than the serum, are thrown to the bottom and the serum is then drawn off.) To remove every trace of serum, salt solution is added and the centrifuging repeated several times. This is called "washing." We now have a mass of typhoid bacilli combined with and antibodies which they have extracted from the serum. These bacilli are said to be "sensitized" because when injected into the body they are more rapidly acted upon by the tissues, and immunity is quickly established (24 to 48 hours). When the bacteria are not senstized before injection the body must produce the necessary antibodies. This takes from 5 to 10 days. Serobacterins are made up into suspensions (that is, the bacteria are mixed with salt solution, in the regular way, just as ordinary bacterins), and are standardized by estimating the number of bacteria per c. c. They are then placed in syringes ready for administration. Careful complement fixation and animal tests are employed to insure that proper sensitization has taken place. Since the value of Serobacterins depends on thorough sensitization, and the complement fixation test proves the extent to which sensitization has taken place, this test is a vital part of the technique.

EXCEPTIONAL SKILL AND FACILITIES NECESSARY.

Serobacterins represent a product which can be successfully prepared only in a laboratory especially equipped for the purpose. The procedure is complicated and cannot be carried out except by the highest type of laboratory experts. The difficulties surrounding the preparation of sensitized vaccines have up to the present time prohibited their production for general use. The H. K. Mulford Company, as in the past with other important developments in bacterin and serum therapy, is the first to overcome these difficulties, and to offer for the first time this superior prepartion to the general practioner. It is important at this time to caution physicians who wish to use sensitized bacterial vaccines in their practice to specify Serobacterins Mulford, as by doing so they will be certain of securing a reliable sensitized bacterial vaccine.

THEORY OF THE ACTION OF SEROBACTERINS.

Just why this combination of bacteria and antibodies constitutes the ideal bacterin has so far not been satisfactorily explained. Logically it would appear that the antibodies would neutralize the bacteria and the mixture would be inert. That the reverse is true, however, has been convincingly demonstrated by prominent authorities (see below).

WHO ORIGINATED SEROBACTERINS?

Credit for originating Serobacterins or sensitized bacterial vaccines, belongs to A. Besredka, Professor of Bacteriology in the Pastuer Institute. His work has been verified by such prominent investigators as:

Dr. Elie Matchnikoff (Assistant Director of the Pasteur Institute), who together with Besredka, conducted experiments on chimpanzees with sensitized typhoid vaccine (living) and

demonstrated that the animals thus trated could be fed large quantities of virulent typhoid bacilli without harm. Metchnikoff is famous for the discovery of phagocytosis, and its bearing on immunity, his work on intestinal putrefaction and the use of the Bulgarian bacillus in its treatment, etc.

Dr. Theobald Smith, Professor of Comparative Pathology, Harvard Medical College, Director of Antitoxin and Vaccine Laboratory State Board of Health of Massachusetts, who showed that a mixture of diphtheria toxin and antitoxin, or, in other words, sensitized diphtheria toxin constitutes an effective vaccine for the prevention of diphtheria.

Dr. Charles Dopter, Physician-in-Chief, and Assistant Professor at the Hospital Val de Grace, who has achieved prominence for his work on the serum treatment of cerebrospinal meningitis, dystentery, etc. His experiments with sensitized dysentery bacilli demonstrated that sensitization converts even this extremely toxic organism into a perfectly harmless vaccine, though up to the present time a dysentery vaccine of the ordinary variety (unsensitized) has not been used on account of the very toxic properties possessed by the dysentery bacillus even after it is killed.

Dr. A. Marie (of the Pasteur Institute) prominent for his work on rabies, tuberculosis and tetanus. He has been conducting extensive researches with sensitized rabies virus. The results of these experiments led to the adoption of sensitized rabies vaccine instead of the regular Pasteur treatment on account of the more prompt action and the small number of doses required.

Dr. A. Calmette, Director of the Pasteur Institute at Lillve, together with an associate, Dr. F. Meyer. have demonstrated the absence of toxicity in sensitized tuberculin. They had very encouraging results with the use of tuberculin thus prepared in treatment. As a result of their investigations, sensitized tuberculins are now quite generally being employed in Germany. Dr. Calmette is well known as the originator of the ophthalmic tuberculin test. etc.

M. H. Gordon, Assistant Pathologist at St. Bartholomew's Hospital, London, who made important clinical investigations with sensitized streptococcic vaccine or strepto-serobacterin in the treatment of erysipelas, etc.

The work of the above mentioned scientists, as well as that of numerous other investigators (see Bull. No. 18) has verified beyond question the law laid down by Besredka that "Whatever the nature of the virus, whether the microbe or plague, dysentery, cholera or typhoid fever, or whether the virus of rabies, or the toxin of diphtheria, whether the microbes are killed or living, sensitization confers upon them properties which convert them into vaccines of the first order, possess- and durable."

ADVANTAGES OF SEROBACTERINS.

1. Rapid Action.—The immunity secured by the use of Serobacterins appears so quickly that it is effective within 24 to 48 hours. The advantage of this prompt action is realized when required before the immunity following the first dose of the ordinary bacterin is present. (This of course applies to healthy persons when the bacterin is used for preventive purposes. In treatment the response following the injection of the ordinary bacterin is quicker than in immunization, but not as prompt as that following the use of Serobacterins. This will be explained away in subsequent papers.)

2. Elimination of Reactions.—No "local reaction" (soreness at the place of injection) or "general reaction" (headache, chilliness, and feeling of illness) follow the injection of Serobacterins. These "reactions" attend the

administration of the ordinary bacterins, varying in degree with different patients.

3. Durability and Permanence.—Immunity secured by the use of Serobacterins is even more potent and lasting than that secured by the ordinary bacterin. This has been proven by animal experiments.

4. Harmlessness.—Serobacterins are absolutely harmless, and may be used in treatment at any stage of the disease. Following the injection of the ordinary bacterin there is a slight lowering in the content of bacteria-destroying properties of the blood due to absorption of these protective substances by the bacterin. This is known as the "negative phase." It is generally considered of no clinical importance, but is entirely eliminated by the use of Serobacterins, which, being already combined with antibodies, do not absorb any of these present in the blood of the patient.

HOW SEROBACTERINS ARE USED.

Serobacterins should be used by preference in every case where bacterin treatment of any kind is indicated. On account of their harmlessness they may be used even in the very last stages of a disease. In such cases it was heretofore thought that only serums could be of any value. The reason for this belief was that the patient could not any longer produce antibodies, and that it would be necessary to introduce them from without, which could be accomplished only by administration of curative serum. With the Serobacterins, however, it has been shown that even in these cases, good results frequently follow their administration. Serobacterins do not interfere with the administration of serum as a supplementary treatment in the usual manner.

ADMINISTRATION AND DOSAGE.

So far as the technique is concerned, Serobacterins are administered in precisely the same way as the ordinary bacterins. Their rapid action, however enables one to give the doses much closer together, and their harmlessness makes it possible to rapidly increase the amount administered. For example, in the treatment of erysipelas, Gordon employed Strepto-serobacterins with excellent results in doses ranging from 100 million to 2000 million at daily intervals. Cruveilhier used similar dosage and intervals in a series of cases of gonococcic infection. (See Bulletin No. 18 in December Digest for abstract of Clinical Reports.)

HOW MULFORD SEROBACTERINS ARE SUPPLIED.

In packages of four syringes as follows: (All bacteria, except the staphylococcus):

Syringe A 250 million
Syringe B 500 million
Syringe C 1000 million
Syringe D 2000 million.

With the staphylococcus (combined albus and aureus) the bacterial content is doubled.

Single syringes of D strength are supplied separately.

This arrangement is made so that physicians can administer the contents of Syringe A for the first dose and Syringes B, C, and D as subsequent doses at intervals of 24 to 48 hours, which will conform to the general usage for Serobacterins, as ascertained from a careful study of the literature that has appeared up to the present time. After reaching Syringe D, if it is necessary to continue the treatment, additional syringes of D strength may be secured separately. It is considered the proper procedure to repeat Syringe D rather than to further increase the dose. The treatment should of course be governed by clinical observation.

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If you have a troublesome case of keratitis have a Wasserman reaction made—it is probably due to syphilis.

ELECTROTHERAPEUTIC NOTES

By O. W. Westlind, M. D., Duluth, Minn.

Electrification sets in motion forces that continue to act for hours, and sometimes days, after treatment. Nervous diseases may be aggravated by too frequent treatments. Ordinary chronic cases require only three or treatments per week. Acute or subacute cases may be treated daily, but never more than once the same day.

Properly applied, electrication stimulates the circulation of the blood, promotes nutrition, exercises the muscles, and, by a chemical process, the waste and repair of the body is promoted, and nutrition of the entire system is improved through direct as well as by direct effect of treatment, producing a tonic stimulating effect in all chronic diseases.

General galvanization or faridization applied in the ordinary manner may be successfully employed in the treatment of rheumatism. Muscular rheumatism offers the best results from electrical treatment. Best results are often obtained through general faradization given in the electrothermal bath.

In cases where inflammation and pain is present, the positive should be the active pole and passed over the entire body, beginning with the positive pole at back of the head and passing it down the spinal chord, then over the parts affected, giving these special attention. The negative pole is preferable at the coccyx or the feet.

In treating swollen or inflamed joints, the current should always be passed transversely through the joint. In treating callosities, ankylosis, and where effusion has taken place, the galvanic current is most efficient, and the negative pole should be applied where it is desired to cause absorption. General treatment usually increases the flow of urine and the elimination of uric acid, thereby relieving the rheumatism.

In brain galvanization, place one electrode over the supraorbital or temporal region on one side, and the other electrode over the postauriculars, mastoid or suboccipital region on the opposite side, thus treating obliquely through both hemispheres. In applying transverse galvanization to the brain, the negative pole causes dilatation of the adjacent vessels and consequent increased circulation, while the positive pole causes contraction of the blood-vessels.

Ordinary sponge, or cotton-covered discelectrodes, held firmly against the skin—not lifted while the current is on, to avoid shock—are used. Wet the hair, if treating through it. A rheostat and milliamperemeter should be used, to insure the greatest care and caution while using galvanization.

Cerebral anemia is treated by longitudinal galvanization of the brain; the negative pole over the forehead and the positive pole over the occiput for two or three minutes' duration. Use electrodes covering one area of 1½ to 2 inches, giving from 2 to 4 milliam p-eres. Failing this, use general faradization for ten to fifteen minutes. Cerebral hyperemia is treated the same way as anemia, except that you reverse the position of the poles—never reverse, however, during a treatment.

Cerebral hemorrhage and softening is treated by galvanization of the brain and central galvanization. This promotes absorption of the blood and serious effusion, and edema and inflammation are overcome. This treatment should not be begun until any danger of cerebral fever is past—usually three or four weeks. With the positive pole over the side of the pain, treatments are given longitudinally, trasnversely or diagonally, according to indications, by the mild galvanic current. Using the large positive pole to the forehead

and the negative to the nucha, treat for ten or fifteen minutes, with not more than 2 milliamperes current.

Rest and galvanization will cure writer's cramp, using the anode in the palm if fingers are extended, or on back of hand if fingers are flexed. Static vibration will also cure this affection: positive pole in the affected hand and negative in the other hand or on the spine or over the head-crown, for ten or fifteen minutes, then rest for several hours.

The stomach is electrized by placing a large broad electrode between the ensiform cartilage and the umbilicus. The lungs may be electrized by placing a large electrode over them, between the clavicle and the lower border of the sixth and seventh ribs.

Acute muscular rheumatism is best treated by general faradization, given in the electro-thermal bath.

Galvanic, faradic, and static electrification will all relieve and cure neurasthenia. When indicated, use your best judgment, and proceed to give treatment; one kind failing, try another.

The liver may be treated by pressing an electrode inward and upward against the tenth rib. The colon may be treated by passing the negative electrode over it, beginning in the right iliac region and passing up to the transverse colon, then across to the descending colon, thence downward to the sigmoid flexure and rectum.

Sprains are best treated by the use of positive galvanization, which relieves the pain; or by the violet light, which also is very good in some cases. Also the use of the Bennett magnetone is highly recommended in the treatment of sprains.

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Mesbe, a South American plant, is now being vaunted by German medical papers as a cure for tuberculosis.

THE X-RAY TREATMENT OF CLIMACTERIC HEMORRHAGES.

By J. M. Martin, M. D., Dallas, Texas.

On several occasions we have called attention to the use of the Roentgen ray in the treatment of uterine fibroids and given reasons based upon personal observations for the belief that this method has great therapeutic possibilities. Recently a number of reports have appeared chiefly upon German clinics, and it would seem that sufficient has now been accomplished to justify American gynecologists in taking a more active interest in this agent.

According to Albers-Schoenberg, Gauss, Kroenig, Graefenberg, Falk, Bordier, Titus, and others, the x-ray is capable not only of speedily controlling the metrorrhagia in cases of uterine fibromyomata, but also of effecting a considerable reduction in the size of the tumor and sometimes its almost complete disappearance. From observations made in the Clinic of Professor A. Doederlein in the last year and a half it appears that Roengen therapy is to be regarded as an important auxiliary in gynecological work. Dr. F. Weber, who presents the report (Munich med. Wochenschrift, No. 14, 1912), was particularly impressed with the efficiency of the ray in arresting true climacteric hemorrhages. He says that the fact that of forty-nine cases only one proved unamenable to its action is in itself strong evidence of the value of this method. Excluding one failure, seven cases in which the later history was unknown, two which remained under treatment for only a short time, and eight still under observation, thirty patients were discharged cured, an equally good showing as to the permanency of the results. When it is considered that these cases were observed in a prominent gynecological clinic, that they were of marked severity, and that in most af them various

other means had been employed without success, and hysterotomy seemed to be the only resource, there is no room for skepticisms. The effect was manifested in general as follows; In some of the women, chiefly those above forty-six years, complete amenorrhea resulted, while in those below this age menstruation either took place regularly, but not in its former profuseness, or slight hemorrhages recurred from time to time. Care was taken in all these cases to determine that no malignant process was the cause of the bleeding. As has been likewise noted in the x-ray treatment of uterine fibroids, the best results were achieved in women in the early or late climacteric period.

In spite of the adverse views of von Herff and some other observers, we believe that the time is fast approaching when the Roentgen ray will be accorded a definite place in gynecological therapeutics. To permit of a fair comparison with surgicial measures this method must be employed by one who is thoroughly familiar with its technic and who has acquired the necessary experience to use it with discrimination.—International Journal of Surgery.

♣ ♣ ♣

A CHEAP ICE BOX.

By W. T. Marrs, M. D., Peoria, Ill.

Many poor families in the cities and larger towns where there is a baby are furnished free ice during the heated season, but very often much of the ice is wasted because there is no ice box or refrigerator. A government health bulletin on the care of babies gives a plan for making a simple ice box at practically no expense. A wooden box about 18 inches square and 12 inches deep is needed. Then procure two tin boxes, one about 11 inches square and 9 inches deep, the other 10 inches square and 9 inches deep. Cracker boxes answer the purpose well. Cut the bottom out of the larger box. Place three inches of sawdust in the wooden box. Put the larger bottomless box upon the layer of sawdust in the wooden box and fill the space between the boxes with sawdust. Fasten the pieces forming the lid of the wooden box together with cleats nailed on the outer surface. Cut a number of newspapers the size of the wooden box and nail them to the inner surface of the lid. Make hinges for the lid by tacking two strips of leather on the outside of the box and then tack additional strips of leather to the front edge of the lid to catch on nails driven into that side of the box in order to hold the lid down tightly. The ice box is now ready for use. Into the smaller tin box may be placed a wire basket containing the bottles of milk, surrounded with cracked ice. Place the smaller tin box inside the larger and close the lid. Each morning remove the inner box, pour out the water, clean and repack with ice. Keep the ice box in a cool, shady place. This ice box, if properly cared for and kept full of ice, will keep a day's supply of milk cool and sweet.

A fireless cooker can be constructed in the same simple manner and at another time I will give a few details concerning how to make one.

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Urotropin (hexamethelnamine) may be employed to arrest inflamatory processes in the gall-passages. Give with the bile salts and the salicylates.

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Writing on neosalvarsan, Rytina of Baltimore, says the clinical results are just as effective, if not more so, as those of salvarsan and the injections are free from severe constitutional and local reactive phenomena.

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F. W. VAN KIRK, M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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Reports and items of interest are gladly received.

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We are now entering upon the hot weather season, and as we all know this is the seasos of the year when infant mortality is the greatest, a few words in regard to the care of infants may not be amiss at this time.

As a rule with a breast fed baby and an intelligent mother, there is actually no more danger at this time of the year than at any other time; but difficulties arise when we have to deal with artificially fed children and with those children where no attention is paid to the dress of the infants during the heated time. It is always well to keep in mind that a child who is breast fed stands the best chance, the next best food being modified milk, in combination with the breast. Often it seems advisable to partially remove the babe from the breast. If such is the case, never entirely wean the child if the mother can supply any part of the food, for experience has shown that a child who only gets a few ounces of mother's milk a day will do better than the child who is entirely artificially fed. With artificially fed babies it is often a problem, among the poorer famlies, how to keep a day's supply of milk cool. An article in this number of the Recorder describes how to make an inexpensive ice chest, and one that will answer every purpose. It is essential that the prepared food should be kept cool and sweet, in order to avoid intestinal disturbances, which are the cause of such a large death rate during the hot months.

Another important point, and one often neglected, is the dress of the babe during the hot months. The most common fault we find is that mothers, particularly mothers with their first child, keep the little one too warm. Let us ever remember to advise every mother to burden the child with as few clothes as possible, and allow the baby to be as quiet as possible the entire day.

Handling a child is not good for it at any time, and especially at this time of the year, for it makes it warm, and when it is too warm it becomes irritable and cross. The best scheme during the hot days is to put a thin slip and diapers on the child and allow it to lie on the bed on a sheet. In this way it is generally able to keep cooler than in any other way, and as soon as a child becomes accustomed to entertain itself it will do so.

The question often comes up whether a mother should nurse her child if she begins to menstruate within a year. By all means, for it is only in exceptional cases that the milk does not agree with the child.

Another question often asked is, does it harm the baby to wean it during warm weather?. Again the answer is

no. A breast fed child who has received the proper additional food, that one adds to its diet from the sixth month on, can be weaned as safely during the warm months as the cold ones. Mothers may prefer to give the child one or two breast feedings a day during the first summer, and there is no objection to it in any way.

A third question often asked is, does pregnancy, in a nursing mother, call for weaning the child? As long as the child thrives and as long as the mother is doing well there is no indication for weaning a child during the first months of the pregnancy. These few words may help some one out in some one case. They are jest practical points and suggestions and they are the ones that count.

ABSTRACTS

PNEUMONIA.

The incidence of fibrinous and bronchocatarrhal pneumonia in the Philadelphia General Hospital is discussed by R. N. Willson, Philadelphia (Journal A. M. A., May 16, 1914), with special refernce to the results of treatment. In a previous paper in The Journal (Jan. 24, 1914) he had shown that deaths from all types of pneumonia in the years of 1911, 1912 and 1913 was 61.5 per cent., a far greater figure than seems justified by the fact that alcoholism and privation had both entered into the experience of the patients. Rather more likely, he says, would it appear to some of us that a possible cause of this and a still higher death-rate to which reference will be made later has been the indiscriminate placing of all pneumonia patients in the cold out-door air. Practically every patient in those years was treated outdoors, whether the patient's temperature was febrile or subnormal throughout, or whether the patient was cyanotic and in respiratory and cardiac distress, or the case was a strictly sthenic one with satisfactory heart and circulatory conditions. During the months of January and February there were treated in his own service, nineteen pneumonia cases. Nearly half as many as were handled by all the other physicians combined, and all the cases with one exception ran a course typical of bronchocatarrhal penumonia. All patients were treated in as fresh air as possible in the warm general wards, as a special ward was unobtainable owing to the general overcrowding. Sufficient bed-clothing was supplied to conserve heat and energy supply. Sixteen of the number recovered and three died, two of the latter being nearly moribund on reception and dying shortly after. The other was a confirmed alcoholic with an extensive cardiac lesion of probably luetic origin, who died suddenly while apparently on the way to recovery, probably from pulmonary embolism. For the first three months of 1914 the pneumonia mortality in his service was 16 per cent. Willson pleads for a thorough examination of every pneumonia case and the experience warrants him in considering the preponderating type of pneumonia to originate bronchiolar or in a peribronchiolar process. He doubts whether there has been or whether there ever will be seen a truly sthenic vitally vigorous sufferer from bronchocatarrhal pneumonia and he pleads against the exposure to cold air of these patients.

INOPERABLE CANCER.

J. F. Percy, Galesburg, Ill. (Journal A. M. A., May 23, 1914), after noticing the various agents that have been advised and used in cancer of the inop-

erable varieties, takes up the question of the vulnerability of cancer to heat, a fact which he thinks suggests the possibility of developing a method that will be of value. The methods which he enumerates as being possible or as suggesting themselves are: hot air, hot water, electric coagulation, fulguration and actual cautery. The first two may be dismissed as having too little penetration. Electric coagulation goes deeper, but the rapidity of its action and the inability to direct it in the cavities, aside from the complicated apparatus and skill required, make it impracticable. The Keating-Hart method of fulguration is also not favorably regarded by Percy, and in comparison with the difficulties of the foregoing method he says: "I have devised a practical method for the application of heat in the treatment of carcinoma that has none of the objections that the various methods already enumerated have. The penetration of the heat by the method to be outlined can be definitely determined and regulated. Its applicability has almost no limitations; when the malignant process is at all accessible, the required apparatus is not expensive, and it is easily portable. The method to which I refer is the application of heat from an electrocautery, accurately controlled by a rheostat, and applied to the affected tissues." He describes experiments made on fresh beef muscle which show that by this method when a charcoal core is avoided, the area of coagulation far exceeds in size that ensuing from the application of greater heat for a longer period of time. It is better, he says, to develop a heat below the degree of carbonization than to try to burn up the mass with a heating iron at high temperature. The charcoal core that is left after cauterization, moreover, not only prevents the scattering of the heat, but also interferes with subsequent drainage and endangers the patient from the absorption of killed cancer cells. If the primary gross mass of cancer, which is usually accessible, can be rendered innocuous by raising the temperature with an electric heating iron and the remaining small amount of lymphatic involvement be reached by thermic-raising, artificially produced toxins, serums or vaccines, as is emphasizer by Vidal, then our dreams of doing something for cancer may be in the way of being realized. Percy believes that he has developed an efficient and harmless method of applying heat which may be useful in the eradication of certain forms of cancer.

MECKEL'S DIVERTICULUM.

J. P. Crozer Griffith, Phiadelphia (Journal A. M. A., May 23, 1914), reports a case of ulcerative inflammation of Meckel's diverticulum in which the combination of clinical manifestations and pathologic lesions was very unusual, unexpected and misleading. Persistent slight hemorrhage from the bowel and severe anemia was present, accompanied by nephritis. The inflammation also extended to the serous layer of the diverticulum, producing a secondary, purulent peritonitis, localized by the matting of the coils of the ileum around the seat of suppuration. The origin and bearing of the nephritis was uncertain. He cites literature on Meckel's diverticulum and reports its occurence with the types most frequently found.

1. Strangulation of the intestine by the diverticulum or its remains, usually attached to the umbilicus or to some part of the intestine, mesentery or other region. The diverticulum may be either in the form of a fibrous, cord-like remainder of the organ, or may have its lumen still present, through all or a part of its extent. In either case the ileum becomes constricted and strangulated.

2. The persistence of Meckel's diverticulum with an opening at the umbilicus, which is unusual, and the subjects are usually males.

3. Formation of a cystic tumor in which the diverticulum becomes obliterated at both ends.

4. With concretions of various sizes present in the diverticulum.

5. Superinvolution of the diverticulum which narrows the intestine and continues the obliterative process to the ileum.

6. With stenosis of the ileum caused by traction of the diverticulum attached at its distal end.

7. Invagination of the diverticulum, which is often followed by ileocecal intusseption.

8. Volvulus of the diverticulum, or of the ileum, which occurs most frequently if the distal extremity of the diverticulum is attached.

9. Hernia of the diverticulum is seen occasionally.

10. Inflammation of the diverticulum, which is one of the most infrequent abdominal diseases. In secondary diverticulitis other lesions develop first in the primary diverticulitis a distinction is to be made between the acute and chronic cases and the relationship of diverticulitis to obstruction of the bowel. The causes of diverticulitis are obscure, though it is probably based on infection. Previous digestive disturbances and trauma have some bear'ng. Diverticulitis is analogous to and may coexist with appendicitis; all grades of inflammation and symptoms may exist. The condition has never been recognized during life, hence the frequency of recurrence is unknown. Spontaneous recovery may take place, but the only practical treatment is operative. Whenever the diverticulum discovered during operative procedures, it should be removed, as it always constitutes a menace.

LACTIC ACID BACILLI GARGLES.

E. V. Goltz and W. D. Brodie, St. Paul (The Journal A. M. A., June 6, 1914), report the results of experiments reundertaken by them to determine the value of lactic acid bacilli injections in treating diphtheritic sore throat. Mulford's Bulgarian type cultures of living bacilli were used after testing their activity on agar slants, and naturally soured milk was also used. The nose and throat were sprayed two, three and four times daily with individual atomizers with the bacillus cultures and the naturally soured milk was used as a gargle and as a nasal douche on patients four or five times daily. Six cases and their controls are reported, and the following conclusions given as reached: "The average quarantine period of the six cases reported in which the lactic acid bacillus is twenty days. The average quarantine period of the six controlled cases treated locally only with Seiler's solution as a gargle is sixteen days. The average quarantine period of fifty-seven cases admitted to the hospital during January, February and March, 1914, comprising all cases discharged with the required cultures is twenty-one days. Lactic acid bacilli in our experience hasten the appearance of diphtheritic membrane, but will not produce cultures negative to the bacillus."

GOAT'S MILK IN INFANT FEEDING.

D. H. Sherman and H. R. Lohnes, Buffalo (The Journal A. M. A., June 6, 1914, report the results of a study undertaken to learn, if possible, why goat's milk agrees better with some infants than cow's milk. The babies were taken at random from the inmates of an infants' asylum. The results of gastric analysis are given and compared. As regards absorption and gain or loss of weight, the results are not definite, owing partly to the fact

that the babies were institution babies and were therefore liable to gain in weight slowly, to an epidemic of a streptococcus infection which occurred at the time, and to removal of some of the babies by adoption before the end of the experiment. Out of sixteen, twelve gained more rapidly on cow's milk and four on goat's milk, but the latter gained much more rapidly. In three cases of infantile atrophy and inanition, goat's milk was no more suitable than any other food. At first the babies did not appear to like goat's milk and did not finish all their bottles. On the whole, they tolerated the two equally well with the same diluents, though the goat's milk contained higher caloric value than that of the cow. The younger the baby the greater the gain with goat's milk. The stools from goat's milk were smaller, and as a rule a more vivid yellow. Vomiting was more common in the goat's milk babies, perhaps owing to the lowered fat percentage in the cow's milk formulas. In certain cases, on the other hand, goat's milk is more often tolerated because of the smaller and lighter curds. After becoming accustomed to goat's milk more children seemed hungry, and cried more at night than when taking cow's milk.

The Viability of the Spirochaeta

PALLIDA.

In connection with their work on the Spirochaeta, it occurred to H. Zinsser and J. G. Hopkins, New York (The Journal A. M. A., June 6, 1914), that it would be of special hygienic interest to find out how long it would survive in diffuse light and at room temperature under conditions simulating, roughly, those prevailing when syphilitic discharges are deposited on hard surfaces, such as glasses or drinking cups, or soaked in cloth, like towels, etc. In order to imitate these conditions, they used fluid cultures that were contaminated both with cocci and bacilli, as well as large numbers of spirochetes; more of the latter were present than have ever been seen except in the most profusely positive primary and secondary lesions. The experiments are given in detail and show that when kept moist the Spirochaeta can live in diffuse light and at room temperature in conditions of mixed cultures, such as occur in the ordinary contamination from patients, as long as eleven and a half hours. Drying, however, kills the organism rapidly, but it may survive one hour during the period of drying. While in the artificial conditions employed in the experiments the spirochetes were probably more protected than they would be under ordinary conditions of contagion. Light conditions, however, were probably more severe than they would be in the ordinary dark corners in which such contamination might take place.

CYST OF THE APPENDIX.

Acase of pseudomyxomatous cyst of the appendix is reported by H. Hartman and G. C. Kindley, Galveston, Tex. (The Journal A. M. A., June 6, 1914). These cases are either rather infrequent or often go unreported, and their importance depends on the possibility of rupture, which may give rise to the so-called pseudomyxoma of the peritoneum. The patient in this case complained of discomfort in the right iliac region, and said that she had been operated upon for movable kidney but without relief. She was operated on again for this supposed condition, but the kidney was found to be normal and the incision was extended and the peritoneum opened, revealing a large cyst, which was successfully removed. The cyst was discovered by palpation, but its true character could not then be diagnosed. The patient made a good recovery.

SYPHILIS AS A PUBLIC HEALTH QUESTION.

H. J. Nichols, Washington, D. C. (Journal A. M. A., May 16, 1914), after remarking on the advances made in our knowledge of syphilis during the last decade, which he reviews, says that they have come not from the clinic, but from the laboratory. We know now that we have effectual means for checking, if not fully controlling, this disease and popular interest in the matter is increasing. The extreme medical position is, of course, that syphilis should be attacked in the same way as other infectious diseases, namely, by detection and removal of the sources of infection, early diagnosis, isolation, prompt treatment and various methods of protection. This position, however, is attacked by many social reformers. They say that "the medical program is a failure in practice and that it tends to legalize immorality." In answer to this first objection, Nichols says that, from the purely scientific view, we are in a good position to control syphilitis, provided we could carry out preventive measures thoroughly. Syphilis, however, is on a different standing from other chief infections. "The endermic center of the disease is . . . in the irregular sexual life of the race and a direct medical attack on the social side of the problem is out of the question." It will be a long day before a sanitary map of the town will be made with syphilis cases pointed out and placards used for infected houses. The subject of syphilis in its relation to public health is not purely a medical one or merely a question of education and reform. We must find out what we can do as physicians and do the best we can. Nichols gives a number of statistics as regards the prevalence of the disease. Most of these are from hospitals, but the research is now being extended into the general population. Even if we can obtain an accurate knowledge of the prevalence of syphilis in a special class, as, for example, in the Army, we cannot fully solve the problem by repressive measures, but a great deal can be done, and as regards the question of treatment, city governments and hospitals do a great deal. The position of most hospitals towards syphilis needs revision. Most hospitals refuse to admit syphilitics, but at the same time they admit the latent cases and other incurable conditions due to existing syphilis, thus throwing away their chances for doing actual good. With our present sure methods of diagnosis and surer specific remedies a great deal of good can be done by properly directed effort. As regards a standard of cure, he gives that used in the Army, where they have unusual opportunities for following up cases. The Army standard is as follows: "One year without treatment, without any suspicious clinical symptoms, with several negative Wassermann reactions and no positive ones, and at the end of the year a negative provocative Wassermann reaction or negative luetin test." These requirements fulfilled, the case is considered closed. As yet about one hundred cases have met the conditions out of several thousand altogether, but the proportion is increasing. The follow-up system used in the tuberculosis campaign and in social service and the establishment of night clinics may aid in handling the situation among civilians. In prophylaxis some hygenic measures are of slight avail, such as the disuse of the common towel and drinking cup and a campaign against promiscous kissing. Medical students are in need of instructions in regard to prevention, as it is a special risk to the medical profession. A more effective measure is along the line of negative eugenics, and that is, the prevention of infection of families by marriage. The standard for marriage, in Nichol's opinion,

should be the same as that mentioned above as used in the Army. The precise time and place for preventive measures is after contact with infected individuals with the calomel treatment of Metchnikoff. Nichols summarizes his views as follows: "1. The application of Koch's etiologic method for the study of infectious diseases, to syphilis, has greatly increased our knowledge of the disease during the last ten years. 2. A strictly medical campaign against syphilis is neither practical nor desirable. A modified medical campaign both practical and necessary. 3. The prevalence of the disease is still largely a matter of conjecture, and information on this point is to be obbtained largely by Wassermann reaction surveys, carried out by municipal and hospital laboratories. 4. The most hopeful outcome of all the recent work on syphilis is the possibility of early diagnosis and radical cure. This possibility is still largely unrealized on account of lack of facilities in dispensaries and hospitals. 5. Our ideas about the efficiency of treatment and about a standard of cure are much more definite than heretofore, as a result of the application of etiologic tests. 6. Syphilis in most cases is a preventable disease, and this fact is an additional warrant for penalizing those who contract it."

URINE FINDINGS IN PREGNANCY.

The following are the conclusions of an article giving the results of an experimental research as to the appearance of non-colloidal ninhydrin-reacting substances in the urine under normal and pathologic conditions and during pregnancy, by F. H. Falls and William H. Welker, Chicago (The Journal A. M. A., June 6, 1914): "1. The presence of non-colloidal ninhydrin-reacting substances in urine is of no value as a means of diagnosing pregnancy. 2. The reaction may be absent or inhibited in the urine of pregnant women, as well as in normal and pathologic urine. 3. In the various urines treated the only difference in the ninhydrin reaction between the diffusates through parchment and the filtrates from the aluminum treatment were those if intensity of colors, the aluminum filtrates showing a less intense color with ninhydrin. 4. In the urines reacting positively with ninhydrin the removal of colloidal substances favors the production of the blue color given by the reagent with amino-acids. Such urines before diffusion or treatment with aluminum hydroxid give a color which is not so strong and has more of a reddish cast. This is not the result of the dilution alone. 5. The occurrence of either albumin or indican appears to have no influence on the ninhydrin reaction applied to the colloidal-free urine."

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GLANCE at PREVAILING SYSTEMS of MEDICINE

E. T. FISH, M. D.
Milwaukee, Wis.

At the beginning of this paper the writer wishes to state, that before taking up the study of medicine, he took the classical course at Union School and College, Schnectady, N. Y. and was consequently prepared for the undertaking. He spent nearly four years in the offices of Dr. Thomas Burton of Fultonville, N. Y., and Dr. Albert Vanderveer, of Albany, N. Y., and graduated at the Albany Medical College in 1879, A. D. After this he spent nearly two years at the University of Vienna and visited Berlin, Heidelberg, Strassburg, Paris and London. He has a license entitling him to practice in the States of New York, Illinois, Montana and Wisconsin. He mentions this to convey the impresion that if he does not comprehend the beauties of medicine he certainly has had the opportunity. The foregoing prologue is also intened to preclude charitable comment.

Today the practice of medicine is truly a hodge-podge. Seldom do we find a family of ordinary size which is unanimous as to the system or doctor to employ. There seems to be a skepticism born of experience, as to the efficiency and efficacy of drugs. This is not strange. It is curious to note that every system of medicine claims equally good results in piloting the sick to a haven of rest. The regular? the Homeopath, the Osteopath, the Eclectic, the Christian Scientist, the Sugestive Therapeutist and all other methods which are advocated for the relief of sickness are attended with equally good and equally bad results. Notwithstanding this pot pouri of systems, sickness is on the increase. Are pathology, bacteriology, microscopy responsible? I think so. Did we not know so much about these things, sickness would soon be on the wane. It is the picture constantly presented to the mind by the microscope, the medical profession and the public press that today is responsible for nearly all sickness. So long as we read medical books and newspapers which depict disease and harbor diseased thoughts in our mind, we will be sick. And this we call progressive medicine. Figures made of wax to show the ravages of tuberculosis of the lungs, cancer, smallpox, syphilis and steel cut in the paper to picture lame backs, ulcers, sore eyes, etc., all tend to impress the mind, and I say, that no matter how much you argue that this is not so, it plays an important role, if indeed it is not the sole cause of disease and sickness.

Then again how in the name of common sense are we to select a system or our family physician? Can it be that two systems which are diametrically opposed to each other are equally conducive to health. Is the entire human race devoid of common sense and una-

ble to determine its needs and must we think "God forgive them, they know not what they do." Today the systems of medicine which have the political pull form truly and positively a monopoly in restraint of trade. In view of the failures in medicine, in view of the fact that in New York it has been recently shown by post mortum examinations that more than 50 per cent of deaths caused by disease, has been positively wrongly diagnosed, and God knows what the per centage might be if the cases that recover could be correctly diagnosed, and in view of the fact that Cabot of Boston, who has just completed his 1000th post mortem of his own cases and been wrong more than half the time, what right have we or the state to make a law which says, "Accept the prevailing system or die"?

A prescription that acts like a charm today is often of no earthly use on the same or a similar case tomorrow. We all recognize that a large percentage of our work is empiric, often amounting to actual dishonesty. The fact is, I have tested three systems of medicine to my heart's content and have found them one as good or bad as the other. All have their advocates and can we say that all are right? The allopath calls himself the regular and this means that he ranges from castor oil to the hair of a grizzly bear, from strychnine to aqua fluoialis; from croton oil to hypnotism. He wants it all. His nerve is supreme. In Homeopathy often the higher attention the greater the potency of the drug. This system is nothing more or less than mind. Call it suggestive medicine if you please. About thirty years ago while practicing my profession in Miles City, Montana, I was summoned to a sick boy, a son of F. M. Schwartz of that city. I gave a prescription which called for digitalis and it was to be used one in four hours. This remedy, I was taught, is supposed to be cumulative and if given oftener than from 4 to 6 hours, one dose will lap on the other and so poison the patient. This boy soon became physically better, his temperature dropped, his pulse became regular and respiration improved, but the family was not satised as I was not giving enough medicine. They suggested a consultation and I called Dr. Chested B. Lebcher of that city. He agreed with me on the diagnosis and the remedy but, he whispered, "you do not give it often enough to suit the family. They fear the boy will die between doses. Just give it every hour in divided doses." I tumbled at once, for it struck me full between the eyes. As soon as I did this the boy began to get well. Now what was this but mind, suggestion, faith? Faith in the rules of health or in drugs begets and fosters disease by attracting the mind to the subject of sickness, by exciting fear of disease. And hence we should prevent the image of disease from taking form in thought. People are often scared to death and often tormented to death. How many times have we all witnessed the struggles of infancy and childhood against the nasty combination of drugs given every two or three hours. How often have we seen parents pinching the noses of their infants and pinioning their arms so as to compel them to open their mouth and then pour in drugs which cause strangulation, almost asphyxia at each administration. Can we say that the benefits derived are not more than offset by the struggles and consequent shock? I have actually seen parents spank a child because it refused to smilingly and greedily take its medicine. Can we say that homeopthy or suggestive therapy is not preferable to this? I have no doubt but that we all mean well and that the parents mean well and that our intentions are good, but hell is paved with good intentions.

What else can we say about sugges-

tion? "I was strong and well, almost hopelessly healthy, until one day I picked up a pamphlet with the title, "You may be sick and not know it." Pretty soon I found that I had many of the symptoms pointed out in the illustration. I could feel myself fading. Until I had picked up "You may be sick and not know it," I had been hearty and happy, but now I saw how fast my iron steed was racing toward the missing bridge. I began to see what an awful thingit was to be sick and not know it."

A remedy which suceeds in one instance fails in another and this is owing to the different mental states of the patient. Hence the thousands of compounds and prescriptions for the same diease and the many systems of drugging. No experienced physician will dney this. The more ignorant the physician the louder he will yell for protection, state boards, etc., the higher and thicker he wants to build the wall of exclusion. Failure to secure results, uniform results, not too terribly suggestive of requiescat in pace, keeps us groping for something new. We certainly are not satised, we are reaching out, still in the tentative age. I am in favor of prohibiting downright quackery, hypocracy and imposition but I do favor personal personal liberty and the right to select any physician or system that affords relief. When once we can improve on nature and can succeed in giving pointers to Almighty God, and do so with uniform success, then I say build your exclusion act as high as the tower of Babel, and as forbidding as the rock of Gibraltar.

The personality of the doctor certainly counts for much. Some physicians inspire confidence, while others fail. What is this but mind! I do not claim that the practice of medicine is altogether a hoax, but much of it is, and we must admit this if we are just to ourselves and to humanity. A great deal is suggestive medicine. The writer is not a Christian scientist but he believes that this creed has done and is doing much for humanity, much more than a poor physician, than the man who holds a lead pencil and a prescription blank in one hand, the pulse in the other and a general disposition to rush the diagnosis, formulate the recipe and copper the coin. Time is too valuable to cite illustrative cases. We all grasp the import of these remarks but we dislike to acknowledge the truth. I am sure that what I write will do but little to improve the situation but I am also sure that this movement will not yield up the ghost for truth is mighty and must prevail.

Every system of medicine has something to commend it. We block the road to health with a barbed wire and compel one to climb the wall of a medical monopoly before he is permitted to releave suffering humanity. Great Heaven, will the world, will mankind never take a tumble? O tempora! O Mores! How long will the layman submit to this, how long before he will rise in his might and tell the la wto go to — and comply with any system for relief.

The very fact that today we have so many ways of healing the sick, speaks louder than words. It shows plainly that the public and we ourselves are dissatisfied. The fact that the profession is grasping every new discovery, every straw or so called discovery, is proof postive that we are far from being content. When the writer returned to America and located in Milwaukee he thought he was some pumpkins. His belief in this was soon disturbed. He had seen and attended many cases of obstetrics prior to this but his first case in Milwaukee was one of childbirth. The sac had ruptured, a hand was hanging down in the vagina, the uterus was contracted on the child with great force. It was a shoulder presentation. He was truly up a tree.

He had to send for another and an experienced doctor who turned and delivered without apparent difficulty. It was an object lesson.

My second case was one of typhoid fever and in its course a peri-typhlitis developed (year 1881). We did not know much about appendicitis at that time. This patient died and the two cases coming so close together, I concluded that although I could speak German and had a card in the paper "Arzt, Wundarzt and Geburtschelfer" I was at least a mile away from the real article. I was humbled and never assumed to be much of a doctor after this. I am opposed to throwing a ring around our profession.

Let every system have a chance and do away with state boards of medical examiners. These laws might do if the practice of medicine and the use of drugs were an exact science but when we all know that every system has its merits and advocates, why compel the public to feed out of our hands. We do it too with supreme gall. Often we slip a fee into the pocket which is practically a steal or worse. I have no doubt that many excellent men in our profession realize this and this does not apply to them, neither do I intend to convey the impression that the profession as a whole resorts to shady methods. I simply say that many do and the law favors and makes the opportunity possible. What more can I say about Christian Science. This creed teaches mainly that God is spiritual, and that man his likeness must also be spiritual and that both are perfect and without beginning or end. That sickness is therefore the consequence of fear, erroneous belief, error and must be overcome by spirit,—God, mind, nature. Can anyone say that this is wrong? If the Bible is authentic, if the first chapetr of Genesis is authentic the Christian Scientists has struck the nail on the head with a terrible wallop.

Science is simply placing all confidence in God, or mind. You receive a telegram announcing the death of a bachelor uncle who leaves you $1,000,000.00. The effect is exhilarating, another dispatch follows saying, "This is all a mistake, uncle is all right, it was the dog that died." The effect of this is depressing. Yes all is mind or nearly so and its infinite manifestations. All other systems have their defenders so throw down the bars.

This paper was composed hastily and the writer therefore has not always finished one line of musing before jumping to another . It is consequently not as smooth and oleaginous as it should be, but he does not feel physically able to spend the time necessary to link synonymous fleeting thoughts.

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Masturbation in Girls. Diagnosis by Yeast Test. Kauffman, N. Y. Med. Jour., Oct. 18, 1913, makes a preliminary test of the urine to insure absence of yeast cells. In the evening, the child is given yeast to handle and put to bed without washing the hands. If yeast is found in the morning, it is considered diagnostic of masturbation. (If the domestic sterilization of the urine containers has been perfect and if yeast has not entered the urine from theanus, and if it has not subsequently entered the sample of uirne from the air, and if the yeast drying on the hands has not been disseminated through the air beneath the bed covers, and if the nightgown or towel or handkerchief or sheet touched by the hands has not come in contact with the genitals, and if there has been no itching or other irritation of the parts leading to touch during sleep, without masturbation and, perhaps, some more ifs. —Ed.)

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 152 June Recorder).

COLIC.

For the pain of hepatic colic the Hyoscine, Morphine and Cactoid combination, half-strength, followed, after this is given hypodermically, by one of the modified formulas of this combination, per os. The latter to maintain the effect: or follow with Hyoscyamine sulphate gr. 1-1000 or Atropine sulphate gr. 1-5000, with Strychnine arsenate gr. 1-128 and Codeine sulphate gr. 1-64 at 15 minute intervals; or, Chlorodyne: or Glonoin gr. 1-250; Hyoscyamine sulphate gr. 1-2000; Strychnine arsenate gr. 1-128: or, Disocoroid gr. ½ to 1 every fifteen minutes. In renal colic follow sedative with Eupatoroid, Gelsemoid and Cannaboid; in enteralgia follow with Colocynthin, Collinsonoid or Lobeloid. For the colics in infancy and childhood the Anodyne for infants, suggested by Waugh, or Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s. High saline enemas. The bowels should be cleared out with indicated remedy, and to effect. After they should be kept in tone by the use of Brucine, Juglandoid and Hydrastoid, latter to be given before meals. Digestants may be indicated. Laxatives at night also. The diet should have attention, in that it may be given with care. The following have their indications: Capsicum and Menthol as stimulants and carminatives; Calomel gr. 1-16; Sodium bicarbonate gr. ¼; Emetoid gr. 1-128; Bismuth subnitrate gr. ½, with Aromatics q. s.; or Sodium carbonate gr. 1; Sodium sulphocarbolate gr. 1; Emetine hydrochloride gr. 1-1000; Hydrastine hydrochloride gr. 1-32; Berberine hydrochloride gr. 1-32; Rheoid gr. 1-6, with Aromatics q. s.; or phocarbolate gr. ½; Juglandoid gr. 1-6, with Aromatics q. s., as antacids and correctives. Croton chloral hydrates and Codeine as antispasmodics and to relieve pain. For the rhubarb action, Rheoid. For hepatic stimulation Euonymoid and Berberine as a tonic to the mucosa. To inhibit bacterial growth in the bowel the Bacillus Bulgaricus may act well, both as a curative agent and to overcome tendency to recurrence.

COLIC, LEAD.

For the immediate relief of pain the Hyoscine, Morphine and Cactoid combination hypodermically, or a modification thereof per os, with a saline laxative carrying Magnesium sulphate every two or three hours to effect. Thereafter, Iodine in one form or another to render the lead soluble and readily eliminated. Potassium iodide or the iodized Lime meet the indication. The saline should be continued twice a day to maintain elimination. The Iodine preparations are particularly useful in chronic cases. Suggest change of occupation.

COLLAPSE—SHOCK.

Glonoin is frequently a "life saver." Best given on the tongue. Hypodermically, Strychnine and Digitalin; Strychnine and Atropine, Strychnine and Cactoid, or camphorated Oil, either to stimulate cardiac action Thereafter Glonoin and Atropine, or Hyoscyamine and Strychnine, by the mouth to maintain effect. The following have their indications: Digipoten, Adrenilin, Caffeine and Strophanthin as cardiac stimulants; the arsenates of Iron, Quinine and Strychnine with Nuclein or Capsicum gr. ⅛, Nux vomica gr. ¼, as general tonics. Heat to body and extremities in all cases. Head lowered, if indicated.

CONSTIPATION.

Seek and correct same. Do not whip bowel with purgatives, else the condi-

tion be made worse. Induce habit of going to stool at least once daily and at the regular time. Suggest and insist on plenty of exercise and see that diet is properly regulated. This condition is frequently due, and especially in women, to too low a diet of coarse food, this not giving sufficient substance to enable the bowel to do sufficient work in itself. If there is intestinal atony exhibit Berberine hydrochloride gr. 1-6; Juglandoid gr. 1-6; Physostigmine salicylate gr. 1-500; Strychnine sulphate gr. 1-64; Capsicum oleorsin gr. 1-64, or double this amount before meals, with three to six of the following after meals; Aloin gr. 1-25; Strychnine sulphate gr. 1-500; Atropine sulphate gr. 1-2500; Capsicum oleoresin gr. 1-500; Bilein gr. 1-250. For lack of hepatic function, Juglandoid before meals with Chionanthoid and Bilein after. In biliousness of the sedentary, Podophyllin gr. 1-32; Strychnine arsenate gr. 1-64; Hyoscyamine sulphate gr. 1-1000 three times a day. It may be well, in practically all cases, to clear the bowel thoroughly as the initiatory procedure. This may be done with evening doses of Calomel and Podophyllin, or other cathartic, followed by morning saline. This should not, however, be kept up, else the bowel become tired and quit working. Among the laxatives which may be indicated are the following: Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. ⅔ with Aromatics q. s.; one at bedtime with morning saline; or Cascaroid gr. 1-6; Strychnine sulphate gr. 1-128; Leptandroid gr. 1-12; Emetoid gr. 1-64; Phenolphthalein gr. ½; or, Cascara Comp. (Hinkle): or, Podophyllin gr. 1-6; Leptandroid gr. 1-6; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-64; Irisoid gr. 1-6; Bilein gr. ⅛: or, Podophyllin gr. ¼; Leptandroid gr. ½; Irisoid gr. ¼; Nux vomica, extract gr. 1-16; Capsicum, powdered, gr. ⅓: or, Aloin gr. ¼; Podophyllin gr. 1-6; Atropine sulphate gr. 1-500; Strychnine sulphate gr. 1-128; Cascaroid gr. ¼; Capsicum oleoresin gr. 1-32: or, Chionanthoid gr. 1-6. Apocynoid gr. ⅛; Leptandroid gr. 1-6; Podophyllin gr. 1-16; Irisoid gr. 1-6; Asclepidoid gr. 1-6; Colocynthin gr 1-1000: or Jalapoid. Apply all remedies according to their specific indications. The following are effective in many instances: Washed Sulphur gr. 1-32; Strychnine arsenate gr. 1-128; Podophyllin gr. 1-64; Collinsonoid gr. 1-128; Berberine hydrochloride gr. 1-128: or, washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25, with Aromatics q. s. Dilate sphincter if tight. This may give marked relief.

CONVULSIONS.

Almost invariably a symptom of an underling cause, which should always be hunted out and corrected. In infants a full hypodermic dose of Apomorphine is very frequently curative of the immediate seizure. Clear the lower bowel with warm water enemas. To equalize the circulation and to sedate, Aconitine, Hyoscyamine and Coniine, in combination, in hot solution every fifteen to thirty minutes: or, one-half to one-fourth of the following: Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s. In older children and adults, one-half strength Hyoscine, Morphine and Cactoid. Lobeline to full relaxation is useful. The seizures associated with dentition indicate the use of the bromides, Butylchloral hydrate or Hyoscyamine. Look for and relieve preputial malformations. The diet should be looked to. In puerperal and uremic convulsions, equalize the circulation, sedate and secure prompt elimination through the use of Veratrine and Pilocarpine hypodermically, or alternate with Veratrine and Lobeline. Purge with Elaterin and apply

heat to the body. As a sedative, Butylchloral hydrate, 10 to 30 grains, in a small amount of starch water, thrown into the rectum and repeated in three hours if required. Among other remedies which have their indications are Aconitine to equalize the circulation, Monobromated Camphor as a sedative, likewise the bromides, with Digitalin to support the heart. In hysteria a full dose of Apomorphine, hypodermically, with promise of more, will sometimes effect a cure with one application.

COUGH.

Always to be considered as a symptom of some underlying condition. The latter should invariably have attention. The cough, in itself, is a thing wanted in several conditions, and unless of such character as to interfere with the well-being of the patient, may be ignored. In some cases this symptom is to be invited and encouraged. If it acts to remove excretory matter from the bronchi it should invariably be encouraged, otherwise sedation is the indication. If the cough is tight, the indication is for those agents which will liquefy the secretions, making them more easily thrown off. Only these agents which meet the indications absolutely, should be exhibited—no others. The older "shot-gun" cough mixtures are not to be employed. If the cough is of nervous origin, with "tickling in the throat," the indication is met by Codeine, Heroin (with great care), monobromated Camphor, or Potassium cyanide. To increase the secretions, Emetoid, Emetine hydrochloride, Sanguinarine nitrate, Scillitin or Apomorphine, with the sedatives, Codeine, Morphine, Atropine or Hyoscyamine in conjunction, if there is much irritation, and with Calcium sulphide to liquefy the secretions and as a general systemic antiseptic. As an alterative, and to promote absorptions, iodized Lime. For the winter cough of the aged, or if there is pharyngeal inflammation, Sanguinarine, Apomorphine or Collinsonoid. In chronic pharyngitis, with hoarseness or aphonia, Collinsonoid or Helenin, or the following: Collinsonoid gr. 1-6; Apomorphine hydrochloride gr. 1-128; Sanguinarine nitrate gr. 1-64; Oil of Anise q. s. one of this amount every hour to relief, then at longer intervals to sustain effect. In laryngitis Aconitine hydrobromide gr. 1-3000; Bryonin gr. 1-500; Atropine sulphate gr. 1-5000; Mercuric iodide gr. 100; or, iodized Lime gr. 1; Mercuric iodide gr. 1-64; Strychnine arsenate gr. 1-128; Phytolaccoid gr. 1-6; Nuclein solution M2: or, iodized Lime. If there is congestion of the upper air passages, hot applications, with counter irritants to the throat, are indicated, with the indicated agents internally. If there is relaxation of the palate and elongation of the uvula, the tonic astringents, as Hydrastoid and Collinsonoid, with iodized Lime, or the following Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m8; iodized Lime gr. 1. The throat and nose should be cleaned with a milk, alkaline antiseptic solution, followed with an oil spray carrying antiseptics. If the uvula does not recede, but is inclined to permanent elongation, it should be amputated. In pleurisy the cough is controlled by Bryonin and Esclepidoid, with Codeine. Never employ the opiates in hypostatic pneumonia, pulmonary edema or capil lary bronchitis, for obvious reasons. Nor should they be used in pulmonary tuberculosis. In fact, in the latter condition nature is endeavoring to throw off the effete matter and the cough does not give indications for control. Iodized Lime acts well, and is indicated as an alterative-absorbent in phthisis. Calcium sulphide is also indicated as a general intiseptic and to liquify the secretions in consumption. For the nervous cough in children and infants, the indication may be met with either of

the following: Nickel bromide gr. 1-128; Codeine sulphate gr. 1-64; Emetine hydrochloride gr. 1-5000; Lithium carbonate gr. 1-16, Oil of Anise q. s.; or, Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s. Among other agents which are frequently indicated are the following: Creosote carbonate: or, Lactucaroid gr. ⅓; Morphine sulphate gr. 1-128; Emetoid gr. 1-250; monobromted Camphor gr. 1-32; Licorice(solid extract)gr. 1; Aromatics q. s.: or Nuclein solution M 10; Guaiacol carbonate gr. 1; Iodized Lime gr. ½; or, Iodized Lime, gr. ⅓; Codeine sulphate gr. 1-32; Emetoid gr. 1-64; extract Licorice gr. 1-6: or, Stillingoid gr. 1-6; Lobeloid gr. 1-6; Oil of Cajeput q. s. Lobeloid and Lobelin sulphate meet the indications as relaxants.

CRAMPS, MUSCULAR.

For their antispasmodic effect, Bryonin and Macrotoid internally, with counterirritants, as Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanolin and Petrolatum q. s. to mae Oz. 1: or other agent of like nature externally. To relieve spasm and relax, Hyoscyamine or Lobeline. Among the antispasmodics which may be indicated are the Hyoscine, Morphine and Cactoid compound, Camphor, Codeine, Coniine, or one of the following: Strychnine arsenate gr. 1-128; Hyoscyamine sulphate gr. 1-1000; Morphin sulphate gr. 1-32; Coniine hydrobromide gr. 1-64; or, Glonoin gr. 1-250; Hyoscyamine sulphate gr. 1-2000; Strychnine arsenate gr. 1-128: or, Strychnine arsenate gr. 1-128; Coniine hydrobromide gr. 1-128; Hyoscyamine sulphate gr. 1-2000; Digitalin gr. 1-128. If there is a rheumatic diathesis, the salicylates or the following: Salicylic acid (true) gr. 1; Iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s.: or Salicylic acid (natural) gr. 1; iodized Lime gr. ½; Stillingoid gr. 1-6; Colchicine gr. 1-250; Byronin gr. 1-128; Macrotoid gr. 1-12; Aromatics q. s. This condition is very frequently due to acidemia and every case calls for examination of the urine for acidity and indican. If there is hyperacidity, push the Sodium and Xanthoxloid mixture until the degree, by the Harrower Acidimeter, reaches the normal, 20° to 40°, or even below the minimum. Elimination should be stimulated strongly in every instance.

CROUP, CATARRHAL.

While croup, other than spasmodic, is usually considered as diphtheria, and so treated, there are some instances wherein the Klebs-Loeffler bacillus does not seem to be present, the condition seemingly, being due to micrococcus catarrhalis and streptococcus, which are present. If doubt exists, however, diphtheria antitoxin should be administered, and that in good dosage early. It will do no harm, and if the case is diphtheric, progress will have been made toward recovery. In those cases in which the true bacillus of diphtheria is not present, Iodized Lime, gr. ⅓ to 1, dry on the tongue and washed down with hot water, and repeated from 10 to 30 minutes, has given prompt results for many. If there is much dyspnea, Apomorphine hypodermically to effect, vomiting, or Lobeline to full relaxation, alternated with Iodized Lime. The Apomorphine will act to clear the throat, thus serving a double duty. Look for an overloaded stomach and bowel in many of these cases and clear both promptly and follow clearing out with the sulphocarbolates to effect. In cases in which diphtheria is suspected, reinforce the leucocyte with full doses of Nuclein solution and push Calcium sulphide to saturation, the latter to combat infection through its systemic antiseptic action. In the dyspnea, cold applications

to the throat may assist the relaxants. In croup the symptoms disappear very promptly, while in diphtheria they are prolonged, with profound general toxemia. Inhalations of medicated steam may act well as synergists and give relief, and a spray of lactic acid solution will assist in the solution of the false-membrane. Calomel in full dosage may check tendency to formation of membrane.

CROUP, SPASMODIC (LARYNGISMUS STRIDULUS).

This condition may be due to adenoids, enlarged tonsils, nasal growths, an overloaded stomach, or sometimes bowels or to faulty elimination. Apomorphine, hypodermically, to effect, or Lobeline, will serve to unload the stomach, with Emetoid to maintain the effect, the dose of the latter to be full to effect. To sedate, Aconitine and Hyoscyamine, alternated with iodized Lime. Application of heat to the throat to relax locally. Glonoin to bring blood to the surfaces and relieve local congestion. To sedate a modification of the Hyoscyamine, Morphine and Cactine compound, Codeine or Hyoscyamine sulphate gr. 1-2000; monobrobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s. Inhalations of steam, may be given with good effect if medicated with the following: Menthol, drams 2; Tincture Benzoin compound ozs. 3, one teaspoonful to be placed in a vessel half filled with boiling water and the steam inhaled every two or three hours. In the intervals the diet should be regulated and hygiene of the patient given attention. The vitality should be raised through the use of Brucine, Hydrastoid, Helenin, or Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution M 8; iodized Lime gr. 1. The bowels should be cleared out every second or third morning with a saline. Spraying of the nares with mild alkaline antiseptic solution, followed by antiseptic oil gives relief in numerous instances.

CYANOSIS.

To dilate capillaries, Glonoin gr. 1-250 to 1-125 on the tongue, or hypodermically, followed by Strychnine and Cactoid to maintain effect. The following cardiac tonics may give good effect: Digitalin gr. 1-128; Strophanthin gr. 1-5000; Strychnine sulphate gr. 1-500; Sparteine sulphate gr. 1-64; Glonoin gr. 1-500; Cactoid gr. 1-128, one every fifteen minutes to effect in acute cases, then two every four to six hours: or, Strychnine arsenate gr. 1-128; Digitalin gr. 1-64; Iron arsenate gr. 1-128; or, Cactoid gr. 1-64; Quinine arsenate gr. 1-6; Capsicum oleoresin gr. 1-64; Strychnine arsenate gr. 1-64. Look to cause and suspect autointoxication. Correct. Stimulate elimination give tonics. As a heart tonic, Canvallamarin, or Sanguinarine. As tonics the arsenates of Irion, Quinine and Strychnine with Nuclein, or, Strychnine sulphate gr. 1-100; Phosphorus gr. 1-200; Atropine sulphate gr. 1-500; Cactoid gr. 1-60.

CYSTITIS.

Invariably examine the urine and thus, in many cases, locate the cause. If there is alkalinity, Ammonium benzoate grs. 2½ to 5 with Arbutin grs. ⅓ to 1, in barley water three or four times a day, alternated with Hexamethylenamine grs. 3; Arbutin gr. ½; Ammoninium Benzoate grs. 3. Boric acid internally is also useful in overcoming the alkalinity. To overcome spasm and pain, Hyoscyamine. Locally the bladder should be irrigated with saturated boric acid or decinormal saline solution. Injection of rectum with a vegetable oil, carrying 40 grs. of Thymol iodide, of the introduction of a suppository consisting of an oil carrying distillate from Shale tar grs. 5; Papain gr. ½; Hyoscyamine sulphate gr. 1-500; Suprarenal gland gr. 1-6;

Cocoa butter q. s., at night. To increase kidney action and give tone to vesical mucous membranes, Asparagin, Barasmoid od Hydrastoid. As a diuretic and tonic laxative the following: Hydrastine hydrochloride gr. 1-64; Berberine hydrochloride gr. 1-64; Helenin gr. ½; Leptandroid gr. 1-6; Eupatoroid gr. 1-12: or, Collinsonoid as a diuretic and alterative; Hammameloid as a tonic astringent. The bowels should be kept active with salines every morning and copious salt enemas every other night. The diet should be light, with little meat, none at all being better. To be prohibited are coffee, tea, tobacco, and alcohol. If there is a symptom of autotoxemia, the Sodium and Xanthoxlyoid compound should be exhibited, a large dose at night. If due to gonorrheal infection and is persistent, the leaving of the bladder with an emulsion of Bacillus Bulgaricus (lactic acid bacillus), after irrigation and drainage. The Coli-Bacterin, Combined-Bacterin (Van Cott), or Gonococcus-Bacterin may be indicated in some cases. The infection should be determined.

CYSITIS, CHRONIC.

Look for and correct prostatic hypertrophy. Cromium sulphate is recommended as a selective remedy for the relief of such overgrowth. Drain the bladder of residual urine and maintain asepsis with full doses of Hexamethyenamine, or if the urine is alkaline exhibit Hexamethylenamine grs. 3; Arbutin gr. ½; Ammonium benzoate grs. 3; if acid Hexamethlenamine grs. 5; Arbutin gr. ½; Sodium benzoate grs. 5. To improve tone, frequent doses of Brucine or Strychnine. To allay irritability, Hyoscyamine or Strychnine valerate in small dose to effect, with a modification of the Hyoscyamine, Morphine and Cactoid compound in some cases. If there is atony Sodium cantharidate gr. 1-5000 acts as a synergist to other remedies. The salines should be employed regularly in that the bowels may be kept active and the kidneys and bladder relieved of some of their work. It is suggested that the bladder be irrigated with Chinosol 1-1000 solution, Ichthammon 2 per cent solution, or weak Boroglyceride solution, every second day, with an emulsion of Bacillus Bulgaricus left in bladder thereafter. If there is involvement of the kidneys and ureters, with mucopurulent discharge, Barasmoid and Collisonoid are indicated. If there is lithemia the following should be administered: Calcium carbonate grs. 10; Lithium carbonate gr .1; Colchicine gr. 1-500; Aromatics q. s. In acidemia, the Sodium and Xanthoxyloid compound should be pushed until the urinary acidity is at normal. In pyuria Calcium sulphide and Nuclein. The intestinal antiseptics, the sulphocarbolates, Salol and Resorcin have their indications. Benzoic acid in catarrhal conditions and to reduce ardor urinae and general acidity. Methylene blue is indicated in some cases. If there is specific, infection the Coli-Bacterin or Gonococcus-Bacterin combined should be used, as indicated. In some cases an autogenoud bacterin may be preferable.

DELIRIUM.

In the acute form Hyoscine hydrobromide or the Hyoscine, Morphine and Cactoid compound. If there is marked cerebral congestion, gelseminine is the indicated remedy. The elimination by the bowel should be forced through the use of Elaterin or Croton Oil with the salines. To equalize the circulation, if there is full pulse, Veratrine in small repeated dose to effect. The following may be used, cautiously: Acetanilid grs. 3½; Sodium bromide gr. 1; Caffeine gr. ¼; Codeine sulphate gr. ¼; or, Acetanilid grs. 2: Veratrine hydrochloride gr. 1-128; Ammonium bicarbonate gr. ⅛. The bromides in low muttering delirium, with Cannaboid for nocturnal delirium, with full

doses of Croton chloral hydrate per rectum with cold douches, in the violent forms. As an hypnotic the following: Sulphonmethane grs. 5; Scutellaroid gr. ⅓; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64 with full doses of Avenin or Passaflora. In alcoholic delirium unload stomach with full dose of Apomorphine, hypodermically. In delirium tremens, Caffeine with Capsicum—Cocaine in some cases. Large saline enemas and frequent cool or cold sponge-baths for their sedative effect. Diet should be light. Always keep the bowel clean by use of the sulphocarbolates.

DENGUE (BREAKBONE FEVER).

Patient in bed, on light diet. Clear out bowels with Calomel and Podophyllin, followed by saline, this to be repeated every second or third night. Control temperature with Aconitine, or Caffeine gr. ½; Sodium bicarbonate gr. 1; Acetanilid grs. 3½; or, Acetanilid grs. 2; Veratrine hydrochloride gr. 1-128; Ammonium bicarbonate gr. ⅛. To sedate, add small doses of hyoscyamine, with cold to the head. To control pain three or four doses of the following: Salicylic acid (natural) gr. 1; iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macratoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s.: or, Aconitine hydrobromide gr. 1-800; Colchicine gr. 1-128; Strychnine sulphate gr. 1-128; Macratoid gr. 1-6. As antiperiodic, Quinine ferrocyanide. Macrotoid or Bryonin may be used alone to control pain in same cases. Calcium sulphide as a general systemic antiseptic and Nuclein to induce leucocytosis, with the arsenates of Iron, Quinine and Strychnine with Nuclein as a reconstructent during convalescence. Sulphocarbolates throughout the course of the disease, with the Bacillus Bulgaricus later to correct alimentary disturbance.

DIABETES INSIPIDUS.

Look for and correct cause. Increase skin function by use of warm salt sponge-baths, with brisk rub-down, and moderate exercise in warm, well, ventilated room. Patient should wear flannel underclothing. Diet should be light, with alcoholic liquors, especially malt, coffee, tea, pastry, candy and saccharin foods forbidden. To overcome intestinal infection the Bacillus Bulgaricus culture. Ergotoid for its constrictive effect on the circulation; Digipotent or Digitalin with Strychnine to stimulate cardiac function; Neuro-lecithin or Neuro-lecithin gr. ¼ with Nuclein solution M 10 to restore nerve tone. As general tonics the arsenates of Iron, Quinine and Strychnine with Nuclein or Iron phosphate, Calcium phosphate, Potasium phosphate, Magnesium phosphate of each gr 1-12 with Nuclein solution M 4. In some cases the Liquor Arsenii Comp. (Barclay) is indicated. To give tone to the bowel and decrease excretion of urine Juglandoid gr. 1-6, with Codeine gr. 1-32 have an apparent indication. If there is high urinary acidity the following is indicated: Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s. This is also indicated in lithemic cases. For its astringent effect, Hamameloid and as a tonic diuretic Helenoid. To flush the capillaries the following at night: Aconitine hydrobromide gr. 1-800; Digitalin gr. 1-64; Strychnine arsenate gr. 1-128.

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Scrutinize carefully every "fistula" near the anus; a skin-lined sinus in the median line, in front of or behind the anus, is congenital and usually leads to a small dermoid.—Amer. Jour. Surg.

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A thymoil ointment applied to the anal region is said to prove curative in infecion with pin worms, by preventing reinfection.

SOME REMINDERS

C. W. CANAN, M. D., B. S.
Orkney Springs, Va.

In those rebellious cases of infantile eczema (moist) in which you have exhausted your resources without results try an ointment of pyrogallic acid one to two per cent strength.

In treating any of the acute psychosis remember to keep your patient in the horizontal position. This best favors the circulation in the brain, releaves the muscular system, rests the motor centers, reduces peripheral stimulation to a minimum and will change the clinical picture in the patient's favor.

Where labor is prolonged because of "rigid os" make a solution of cocaine, say ten grs. to the ounce, take a piece of cotton, saturated with this solution and by the use of the speculum place it in contact with the os. Wait a little while and you will find the rigidity gone and relaxation in its place.

In using local treatment in the cure of chloasma do not use mustard plasters, blisters, etc., as such agents are likely to increase the pigment. One of the safest and most effective remedies in the writer's hands has been a solution of 5 grs. of corrosive sublimate to the ounce of water.

Remember that in obstinate cases of nose bleeding some of the simpler means succeed while those of great import fail. A vigorous motion of the jaws will often control obstinate cases if continued for some time. Chewing gum or a wad of paper and rapid chewing and the thing is done.

To replace a recent prolapsed bowel. A piece of ice about three inches in length shaved into a smooth suppository leaving the large end about one inch in diameter. The large end is wrapped with iodoform gauze and the point is pressed gently against the center of the prolapsed mass until it is replaced. The operation is painless and if the ice is pushed well up it will be retained without bandage. Employ a fresh piece in this way after each movement and a cure is soon effected. This plan is only applicable in recent or acute prolapse. A little study will explain its physiological action.

It is always wise to discriminate carefully when selecting a dressing for wounds of various kinds. While no rule can be absolutely followed but in fresh incised wounds dry dressing is preferable to wet, while in contused or lacerated ones the wet is superior at first, later change to dry. In carbuncles, feruncles and infected wounds wet dressings are indicated. Where there are deep sinuses or pus has burrowed clean out carefully and pack with dry dressing.

Punctured wounds with small orifices should always be dressed with wet dressing.

Dry dressing should always be used upon wounds of the scalp, whether infected or not.

Remember that in abdominal cramps, colic, cholera infantum, and spasmodic dysmenorrhea we have in copper arsenate one of the ablest remedies in the "Materia Medica."

This drug has rather been neglected of late; this should not be so, for it has a wide field and is prompt in its action. Grs. 1-250 to 1-500 can be given every ten to thirty minutes and will seldom fail if the diagnosis has been carefully made.

Don't forget that we have in belladonna one of our best friends when we wish to treat metritis. The following symptoms are the indications for its employmen: distended abdomen, with pain of a lancinating digging character, or as if the intestines were clamped in a vice . A painful downward pressure as if everything would be pressed out the vagina.

Abdomen very sensitive to pressure.

Face red, with heat about the eyes and ears. Pressive headache, throbbing carotids, pain in small of back as if broken. Lochia suppressed, or if present, generally offensive.

To those who have never used camphor in lagrippe to relieve the pains and to quiet the nervous system, let me say, try it the next time you have an opportunity. The monobromated 1-6 gr. every 20 or 30 minutes will not only relieve the above but acts fine in hysteria, convulsions, insomnia, teething, colic and many other conditions.

SYNTHETIC RUBIES

F. F. CASSEDAY, M. D.
Portland, Ore.

Science is solving the problems of humanity. We began with whale oil dips and now have the electric lamp. The light of the future will be a cold lamp of even greater brilliancy and efficiency than the present electric lamp. With whale oil and carbon oil we felt that we were dependent upon natural production for light, but the electrict light, illuminating gas, and acetalyne gas have demonstrated the fact that artificial illumination can be secured by artificial methods. There was a time when practically all of the world's indigo was grown in India and near by countries, today the world's indigo is produced synthetically. It is real indigo, and a better coloring material than the vegetable product.

Analysis is dividing the whole into its component parts and identifying the elements which compose it; while Synthesis is putting the individual elements together and making a compound. The scientist analyzes a natural product or a mineral or combination of elements, ascertains the proper proportions and method of formation, and then proceeds to construct a similar product, mineral, gem, or element. When the process is complete and the synthetic product is finished it is found to be a real product, gem or element, and it answers to all the tests, and is as completely real as the natural product. In mnay respects it is better because it is absolutely free from contamination and unmixed with other things.

Synthetic Chemistry and its application to manufacture will solve the problem of increased population and stationery areas of land available for the natural production of food. Let us put it in another way. The population of the world is increasing with great rapidity, great cities are being built and inhabited by millions of people who raise nothing to eat. The arable land is rapidly being placed under cultivation, and the question of meat supply is even now being discussed. There may come a time when there will not be a sufficient food grown and live stock raised to meet the demands of humanity for sustenance. Before that time arrives Synthetic Chemistry will find a way to produce food artificially from the elements found in earth and air, and there is no reason to fear that this food produced synthetically will be one whit inferior to the natural products upon which we depend today.

The Industrial Chemist today is solving the problems of manufacturing; he is saving waste; utilizing what a few years ago was considered useless waste. The Industrial Chemist is doing another thing for the American manufacturer, he is showing him efficiency and efficiency alone from the top to the bottom of his processes is the only basis upon which the manufacturer can compete successfully in the markets of the world.

The synthetic production of the ruby is the manufacure of the ruby in the

laboratory furnace from other elements. The synthetic or laboratory made ruby is a real ruby answering all the tests and equal in all respects to the natural stones. In fact synthetic rubies are so good and perfect that frequently money loaners refuse to loan upon any ruby. It must be clearly understood that synthetic rubies are not imitation stones, or made by superimposing a thin layer of ruby upon an under layer of glass. They are real rubies just as completely as are mine rubies.

The natural mine ruby consists of pure alumina, with a trace of coloring matter in the form of oxide or chromium or manganese. The problem of the scientist consisted in mixing these things together. This for a long time was impossible owing to the fact that the melting point of alumina was beyond any known method. (Finally M. Verneuil with the aid of the oxyhydrogen blow pipe accomplished the melting of alumina. Following this a Frenchman, M. Pasquier of the Rue Lafayette, Paris, France, in his little shop made real rubies in his furnace and now the commercial production of rubies by synthesis will put the mine rubies out of the trade. In making the ruby a solution of common alum is first made, and to this a mere trace of chrome alum is added as the coloring material. Then ammonia is added and the result is a gelatinous precipitate consisting of the hydrates of aluminum and chomium. This gelatinous precipitate is filtered, evaporated down to dryness and calcined into an intimate mixture of alumina and oxide of chromium. That is to say it is reduced to a chalk like powder by heat. It is then ground into an impalpable powder, and placed into the transforming apparatus. This apparatus consists of two tubes meeting at a fine point of exit. One tube carries common illuminating gas and the other oxygen, and the oxyhydrogen flame produced at the point of exit is carefully regulated and gives a temperature of about 2000 degrees centigrade. The powder is above the flame in a small box, when it passes down through a fine sieve through the tube supplying the oxygen to the intense flame. Each particle of the powder comes in contact with the flame. As the powder fuses in the flame it falls drop by drop upon a small stand below the flame and builds itself up in a beautiful pear shaped body known as the "brut." This is the ruby. It is so sensitive that when taken up in the hand of the operator that it instantly flies to pieces. Once broken however by the initial strain there is no further breakage, and after the fragments are polished and cut by the gem cutters the operation is complete, and the rubies are ready for my lady's rings or necklaces. This little laboratory in Paris can produce 100 karats a day, so there is no longer any profit in mining rubies.

Synthetic manufacture of other gems is carried on successfully, and it is very probable that diamonds will eventually be produced in the furnace of the industrial chemist.

The dream of the ancient alchemist of transforming base metals into gold may some day be accomplished. When it is accomplished gold will become so cheap that some other element will have to be selected as a medium of exchange in the markets of the world. It is custom among bankers and financiers to specify that bonds, notes and other obligations calling for future payment of money shall be paid in gold coin. It would cause some one inconvenience if one could buy a hundred weight of gold for a hundred dollars and pay off obligations of a hundred dollars with it. Outside of the demand for jewelry and other articles of ornament the value of gold is wholly artificial based upon its use as a basis of value for a medium of exchange in the world markets. The

difficulty of mining gold, its comparative scarcity, and its use as a basis of value gives it value. When it is cheapened a substitute will be needed.

As technology and improved means of investigation are devised the field of synthesis will widen and extend, and the industrial chemists, the physicists, and other scientists will drag from nature's heart her innermost secrets for food, raiment, and betterment of the human race in every way. These men do their work for the love of it and the pecuniary end is secondary to the scientific. These are the men and women who are breaking down monopoly and working for the common good of mankind.

CREOSOTE CARBONATE

J. A. BURNETT, M. D.
Hartshorne, Okla.

A description of creosote carbonate is given as follows:

Clear, yellow, honey-like, almost odorless liquid insoluble in water, but miscible with alcohol, chloroform, ether and fixed oils; thick when cold and thin when warm. The dose is ¼ to 1 drachm 3 or 4 times a day.

Creosote carbonate is well tolerated by the stomach which is an important consideration. Dr. Louis Fischer says:

"I have never seen ill effects from the use of creosote carbonate nor any irritation of either bowels or stomach nor does it cause diarrhoea in the weakest infants."

Again Dr. Fischer says:

"I have found the best results from the administration of creosote carbonate after meals or in infants after feeding."

Dr. Fischer had his patients weigh at stated intervals so they could see the gain. In one of his patients the percentage of the haemoglobin increased from forty-eight to almost a hundred per cent.

Dr. William S. Gottheil said:

"In none of the few cases in which I have used the drug in large doses was there nausea or vomiting or any trouble with the stomach or intestines. In every case there was improvement of the appetite and strength, lessening of the cough and increase of body weight."

Creosote carbonate has given good results in pertussis. Dr. Joris reports curing a patient, age 42, with 6 2-3 ounces of creosote carbonate giving three teaspoonfuls daily. Another age 25 years was cured with 3 1-3 ounces by giving two teaspoonfuls each day.

Dr. I. L. Van Zandt places great confidence in creosote carbonate in the treatment of pneumonia. He says:

"Creosote does not only act as a direct disinfectant of the lungs but as a powerful fibrifuge as well."

He further says:

"It was further used for diagnostic purposes in all variety of lung disease. In tuberculosis the results described above (temperature fall) were not noticeable hence the drug can be recommended in all cases where there is doubt whether a pneumonia or an acute tuberculosis is present."

In the treatment of pneumonia Dr. Van Zandt does not wait to give a preliminary purge but begins the creosote carbonate at once. Expectorants antipyritics and quinine are entirely omitted. He gives one drachm night and morning or 2½ drachms daily in four doses or 20 drops every 3 hours. Creosote is used in typhoid fever.

℞

Creosote carbonate .....ʒ xix
Thymol .....ʒ [illegible]
Menthol .....ʒ iii
Eucalyptol .....ʒ vjss
Alcohol q. s. ad .....ʒ viii
M. ft. sol. This is a stock solution.

To make an emulsion.

℞

Solution above given .....ʒ v
Powdered gum arabic .....ʒ jss
Water .....ʒ iv

M. Sig.—Dose one teaspoonful every three hours in a wine glass of water.

There is quite a difference in the dose of creosote carbonate used by various physicians. Dr. J. A. Wessinger says:

"The dose is practically unlimted as far as toxicity is concerned but it is preferable to begin with a small amount two or three drops after eating and increase until the desired results are obtained."

Dr. Beanmetz in speaking of the dose says:

"Creosotal absolutely neutral and without either the disagreeable odor or the burning taste of creosote is so feebly toxic compared with the pure drug that it can be given without admixture by the teaspoonful. It is well borne even by the most delicate and fastidious patients."

Dr. Joris says:

"For economy sake, I always prescribe the creosotal in the original bottles. Adults were given two or three teaspoonfuls and children from 3 to 10 drops according to age thrice daily. "the various directions for making up the creosotal into emulsions are entirely superfluous at least with the Von Hayden product. It is almost entirely tasteless and in milk the children take it readily and with pleasure."

Dr. C. Herwirsch stated that he had used creosote carbonate in his private and hospital practice with very good results but that in order to be of benefit it should be taken in large doses.

MISCELLANEOUS

WHOOPING-COUGH (PERTUSSIS).

By the Courtesy of the Mulford Laboratories.

CAUSE.

Whooping-cough, or Pertussis, is due to bacterial infection. The whooping-cough germ is named the Bordet-Gengou Bacillus after its discoverers, Dr. Jules Bordet* and Dr. Octave Gengou.† This bacillus finds its way into the trachea and bronchi and is caught by the cilia (minute hair-like structures lining the entire respiratory tract, whic hconstantly wave to and fro, and the purpose of which is to catch and brush out foreign particles of all kinds). The whooping-cough bacillus once located between the cilia, multiplies rapidly and soon is present in such large quantities that normal motion of the cilia is interfered with and irritation is produced, which results in the well-known spasmodic cough and whoop. The cilia being unable to perform their usual functions, foreign particles and bacteria readily find their way into the bronchi and lungs, to which fact is due the frequent development of pneumonia in whooping-cough patients. Besides the pneumoncoccus, the influenza bacillus, the streptococcus, staphylococcus and members of the Microcooccus catarrhalis group may find their way into the bronchi and lungs from the throat and nasal passages. The ready access of this respiratory tract on account of the inactivity of the cilia frequently results in a serious mixed infection.

MODE OF RECOVERY.

The whooping-cough bacillus rarely remains long on the respiratory mucous membrane, but when it has disappeared the trouble is kept up by the other micro-organisms mentioned above for which it has proved a foothold. Recovery from whooping-cough therefore,

must in every case be produced by Nature in the following manner: First, antibodies are formed against the whooping cough bacillus, and as the other bacteria make their separate or combined attacks, corresponding antibodies are produced, and they are also destroyed. This procedure, however, consumes a great deal of time, so that an untreated case of whooping-cough will frequently persist for months.

Knowledge of the causative and complicating agents leads of course to the proper treatment with bacterins. It is not sufficient to employ a bacterin containing the whooping-cough bacillus alone, as the elimination of this factor would have no effect on the other bacterial present. The best results are to be secured by using a bacterin containing not only the whooping-cough bacillus, but the pneumonoccus, influenza bacillus, streptococcus, staphylococcus, and members of the Micrococcus catarrhalis group, or in other words, a vaccine corresponding to the various micro-organisms which combine to produce the disease. Pertussis Bacterin Mixed Mulford contains the miroorganisms referred to, killed and suspended in sterile physiological saline solution, and suitably graduated in regard to strength. It is supplied as follows:

Pertussis Bacterin Mixed Mulford (Pertussis Vaccine Mixed):

Indications: for the treatment of whooping cough and immunizing against the disease.

Each syringe contains million

	A	B	C	D
Bordet-Gengou Bacillus	25	50	100	200
B. influenzae	12.5	25	50	100
Staphylococcus aureus	25	50	100	200
Staphylococcus albus	25	50	100	200
Streptococcus	12.5	25	50	100
Pneumococcus	12.5	25	50	100
M. catarrhalis	12.5	25	50	100

The usaul initial dose of Pertussis Bacterin Mixed Mulford, is the contents of Syringe A, reduced of course to 1-5 to 2-5 of Syringe A, for very small children. It should be given hypodermically every three or four days; infants from the beginning, in older children at the height of the disease.

Clinical Reports (Quotations from recent articles):.

John Zahorsky, M. D., (1) of St. Louis, Professor of Pediatrics, St. Louis, University School of Medicine, treated 40 cases, and says regarding the effects of Pertussis Bacterin:

When a hypodermic injection of 20 million bacteria is administered, no general reaction is observed. In several cases, in which temperature determinations were made, no elevation beyond that usually found in pertussis could be discovered. No local irritation occurred in any of the writer's cases. The pain from the injection is trifling. A few hours afterwards the cough seems to become worse, and this period (negative phase) extends over twenty-four hours with a moderate dose (30 million), but may extend over two or three days after a large dose (100 million). After this period of aggravation of the symptoms, a period of two to four days follows in which a great improvement is observed. Often this improvement is so striking as to be readily noticed. Such expressions as 'he slept all night,' 'the first night that I have had a rest,' "only had one attack,' 'had several attacks but they were so mild that he did not wake up,' were given by the mothers in fully one-half of the cases. Sometimes the effect is really remarkable." His conclusion is as follows: "Pertussis bacterin in doses of 30 to 50 million is a very helpful therapeutic resource."

Edwin E. Graham, A. B., M. D., (2) Professor of Diseases of Children, Jefferson Medical College, Philadelphia, gives the following results and conclu-

sions: "Of the twenty-four reported cases, seven were aparently not benefited by the treatment, the disease evidently pursuing its usual course in about 29 per cent. Seventeen patients, or about 71 per cent, were apparently benefited by the treatment. I believe the dose could and should be increased beyond 40 million, especially for severe cases; 60, 80 or 100 million will probably be a more efficient dose. The results obtained in these twenty-four cases warrant, in my opinion, a more extensive trial of the vaccine.

R. W. Allen, M. D., B. S. (3) London), has recently reviewed the subject of bacterins in whooping-cough. He says, "by the end of the first week the Bordet bacillus has almost disappeared from the secretions, whereas the B. influenzae and pneumococcus, and perhaps the streptococcus and M. catarrhalis have increased considerably in number. A pure infection is so rare that the symtpoms referable to the Bordet bacillus alone may be almost said to be unknown.

Freeman (4) gives a detailed account of the many careful observations which he made in order to determine the correct therapeutic dose. Doses varying from 2 to 120 millions were employed, the final conclusions being that a dose of about 100 millions give the best results, and that a weekly repetition os quite safe. By these means he found that the average duration of the diesase in his vacinated cases was reduced to 4.3 weeks as compared with 7.4 weeks in those who received inoculations of saline solution and served as controls.

"Reinoculation may be performed at intervals of from five to seven days, and at the third inoculation a double dosage may be employed if thought advisable."

"As a prophylactic the initial dosage corresponding to the age may be doubled in seven days; and this again doubled if thought advisable after another seven days.

The employment of the above combined vaccine for this purpose may also be expected to diminish the liability to broncho-pneumonia, and is devoid of all risk."

"As to the duration of the immunity thereby conferred we as yet know nothing; probably it is about six months, so that two series of inoculations yearly may suffice to confer the desired protection."

Saunders (5) and collaborators treated 40 cases of whooping-cough and immunized 14 children exposed to contagion. Their conclusions regarding the value of pertussis bacterin are as follows:

"1. That as a prophylactic the vaccine has a decided value; whilst it is true that vaccination or some other infection will postpone or interrupt the course of pertussis (pertussis) vaccine alone will absolutely prevent it. The immunity is of uncertain duration, but the injections may be repeated and it is of the utmost importance to postpone the disease until the child has passed the age of twelve. The failures reported by some observers must be attributed to an impotent vaccine or to insufficient dosage."

"2. That as a remedial agent success depends upon the promptness of administration and the freedom from compliactions at the time."

"3. In no case should other treatment be withheld if indicated, especially in infants, who may be spared convulsions or bronchopneumonia by the use of emetics, sedatives, or some aromatic compound."

"4. It is quite possible that much better results may be obtaintd in late cases by the use of larger doses and the combination of vaccine directed against the allied organisms.

*Bordet is pronounced Bor-day. Dr. Jules Bordet is Professor of Bacteriol-

ogy in the Univeristy of Brussels, and Director of the Pasteur Institute of Brobant.

†Gengou is pronounced Gan-goo. Dr. Octave Gengou is one of the Medical Faculty of the University of Brussels.

Note.—Bordet and Gengou originated or were the first to employ) the complement fixation test for diagnostic purposes. The Wasserman test for syphilis, the complement fixation test for gonorrhea, etc., are adaptation of the oringal Bordet-Gengou complement fixation test. (These tests will form the text of subsequent papers.)

(1) Zahorsky, John, "The Bacterin Treatment of Pertussis," Interstate Med. Jour., October 1912, pp. 844-855.

(2) Graham, Edwin E., "The Treatment of Pertussis with Vaccine," Amer. Jour. of Diseases of Children, Jan., 1812, pp. 41-49.

(3) Allen, R. W., "Vaccines in Whooping-cough," Jour. of Vaccine Therapy, Sept., 1912, pp. 255-257.

(4) Freeman, Proc. Royal Soc. of Med., vol. iii, No. 9, p. 97.

(5) Saunders, Pediatrics, March, 1912.

PRACTICAL POINTS FOR THE BUSY PRACTITIONER.

W. F. Waugh, M. D.

Diabetes Mellitus.—J. L. Hill suggests starvation and saline purgation for four days; then allows food gradually, but avoids overloading and ferment-producing articles. Repeat this course monthly.—Medical World.

Epilepsy.—R. H. Spangler reports six cases of epilepsy treated successfully by crotalin hypodermically.—Medical World.

Physicians everywhere realize a realm just beyond the physical world in which they live; and whatever it is called and whatever its influence may be, there is a consciousness of power from that source which can not be put aside.—T. D. Crothers, Medical World.

Amoebic dysentery is a universal infection. Though it may not be found in its severe forms in the northern states, it is important enough to warrant a careful diagnosis. A stool examination is simple and may result in findings that will lead to the relief of a chronic and distressing ailment.—A. H. Sanford, Journal-Lancet.

Hemorrhagia of Young Girls.—H. C. Coe looks upon Organotherapy as the best curative agent. He cautions against applying caustics to the delicate endometrium. A colleague ligated the uterine arteries, with success. Coe speaks further of an exploratory abdominal incision, and thinks it must be a desperate case where both ovaries should be removed, not to speak of suprapubic hysterectomy (N. Y. Med. Journal). We fully agree with the last statement. How it would jar these ultra up-to-daters who pride themselves upon their ignorance of "drugs," to have some old country doctor with hayseeds in his whiskers come in and cure these cases by giving apocynum.

Half Ohio's lard has been found to be adulterated, containing from 10 to 40 per cent of beef tallow. Sodium sulphite brightens old meat ground up for Hamburger. Cereals are mixed in the pork sausage. Oysters consist of 92 per cent water. Coffee is adulterated with chickory, skim milk and renovated butter. Altogether, according to the American Food Journal, the Buckeyes have a hard time of getting enough real food to eat.

Copper from spraying mixtures is sometimes found in celery. It is harmless.

The pound of butter in Utah weighs only 15 ounces.

To avoid sunstroke.—Swing in a hammock and drink lemonade; have a satellite to fan you; eat lightly; and when hot take a plunge bath.

Rheumatism.—In the intensely hyperemic joint the blood being stagnant must become surcharged with CO_2; acidemia increases so as to cause local libe ation of salicylic acid enough to exert an antiseptic action.—Wood, N. Y. Medical Journal.

Gastric Ulcer.—Mathieu advises atropine in recent ulcers with pyloric spasm and hypersecretion, and in old ulcers with incomplete pyloric senosis. The atropine should be pushed.—N. Y. Medical Journal.

The New York Medical Journal editorially suggests the use of the flannel abdominal bandage by our troops at Vera Cruz, as a prophylactic against the hot weather diseases there prevalent. If once employed the binder must be worn continually, and not used intermittently.

While there has been a notable decrease in mortality in ages up to forty years, there has been a far greater increase in the ages above forty. This amounts to 29.2 per cent between 50 and 60 years. The mortality has especially increased from diseases over which sanitation has no control. In Chicago cancer deaths increased from 2.96 per 10,000 to 6.70, between 1870 and 1910.—C. J. Whalen, Ill. Med. Journal.

HOW TO SAVE BROKEN NEGATIVES.

H. C. Bennett, Lima, O.

Extracted from Studio Light, by permission of the Eastman Kodak Co.

It often happens that a valuable negative gets cracked, but so long as the gelatine film itself is not broken it is a comparatively simple matter to transfer the negative to another piece of glass. There have been various methods recommended for printing from broken negatives, such as cementing to another glass with balsam, backing up with ground glass or translucent paper, etc., all of which have some advantages but are only imperfect makeshifts at the best.

If it unfortunately happens that the negative is broken, due to pressure in the printing frame or from other cause, the first thing to do, if only the glass is cracked, is to be careful not to break the sections apart. It is very necessary to keep the delicate film of gelatine, which is the real negative, intact. To do this and to prevent tearing when treating in the various solutions, it is advisable, as a first step, to provide a film support for the injured negative. This is accomplished by laying another piece of glass against the back and securely fastening at the corners with narrow strips of surgeon's plaster. The emulsion should then be toughened with formaldehyde and the negative again dried before stripping. The solutions used are as follows:

No. 1.

Formaldehyde	½ oz.
Water	16 oz.

No. 2.

Sodium Fluoride	2 drams
Sulphuric Acid	2 drams
Water	32 oz.

No. 3.

Ammonia	1 oz.
Water	16 ozs.

For stripping, the negative should first be put, without previous wetting, into Solution No. 1 and allowed to remain from 5 to 10 minutes. After being thoroughly hardened in this bath, the negative should be rinsed lightly under the tap and placed in the rack to dry. Here the necessity of having the broken plate firmly attached to another plate will be very apparent. The negative must be dried after the hardening bath, otherwise a successful transfer cannot be made.

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F. W. VAN KIRK, M. D., EDITOR
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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 JULY, 1914 No 7

The Recorder believes there are many subjects in the minds of individual physicians which they would like to have discussed—some point which if brought out into the light of discussion would benefit the entire fraternity. This journal asks the doctors to write of their thoughts for publication in the columns of the Recorder.

Many physicians are unable to attend meetings and conventions but even so, hundreds of questions arise in daily practice which if brought before an audience of physicians, such as is represented by the readers of the Recorder, information would be disseminated in an agreeable and rapid manner.

Will you send your question for publication in the next number of the Recorder?

AMERICAN COLLEGE OF SURGEONS.

Many inquiries have come to our Journal in regard to the formation of the "College of Surgeons." The following article will give our readers a good idea of what the College of Surgeons stands for, its ideals, etc., and we are indebted for the same to "The Milwaukee Journal."

The American College of Surgeons was founded in Washington, June. 1913, by 500 of the leading surgeons of the United States and Canada. It has not connection with any teaching institution or any other medical organization. The college is founded on the lines of the Royal College of Surgeons of England, but with more strict re-requirements for fellowship. Character, ethical and moral, is the pre-requisite for fellowship. At the first convocation in Chicago, Nov. 16, 1913, 1,057 fellows were given degrees and at the second convocation, in Philadelphia, more than 500 more fellows were installed.

The last convocation, at which applicants will be admitted without examination, will be held in Chicago in November, this year. After that all admissions will be by a strict examination.

A great many good men who are applicants have not yet qualified on account of delays or on account of some defect in their credentials, all of which will be in order before the November convocation. After this year the college will have a permanent home, probably in Washington city.

Each applicant must pass in every respect and obtain the approval of four sets of his peers; one set of five men he himself names; five are appointed by the regents of the college from his own state or province, who confer with all other members of that state; and a central committee on credentials of five men are appointed from at large to review the findings of the first two

bodies before passing the papers up to the regents, a body of fifteen eminent men from all over the North American continent, whose action is final. If any part of any paper is defective it holds the applicant up till it is satisfactory. The work has been enormous and a few mistakes may have been made but there is provision for correcting errors if found necessary. The college feels that the greatest mistake it could make would be to leave out a morally ethical and upright man, and in time all such will be gathered in even if he is a fair surgeon only. The college should result in less surgery and better surgery in this country.

An idea of the objects and aims of the college can be derived from the folowing Declaration, which each applicant is obliged to sign when making his application:

"I hereby promise upon my honor as a gentleman that I will not, so long as I am a Fellow of the American College of Surgeons, practice division of fees in any form; neither will I collect fees for others referring patients to me; nor will I permit them to collect my fees for me; nor will I make joint fees with physicians or surgeons referring patients to me for operation or consultation; neither will I in any way, directly or indirectly, compensate any one referring patients to me; nor will I utilize any man as an assistant as a subterfuge for this purpose."

Before being fully admitted to full fellowship, on the day of the convocation at which he is accepted, he must sign the following Fellowship Pledge:

"Recognizing that the American College of Surgeons seeks to exemplify, enforce and develop the highest traditions of my calling, I hereby pledge myself, as a candidate of fellowship in the college, to live in strict accordance with all its principles, declarations and regulations. In particular I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics. to regard scrupulously the interests of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money-making and commercialism as disgraceful to our professsion; to refuse utterly all secret trades with consultants and practitioners; to teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to co-operate in advancing and extending by every lawful means within my power, the influence of the American College of Surgeons."

The convocations are formal and imposing affairs and the surgical profession of the city in which they are held prepares an enormous program of clinics during the stay of the members in their city.

♣ ♣ ♣

Uterine curettage has its chief indications in incomplete abortion, metrorrhagia as from submucous fibroids, inoperable carcinoma, etc. Its indiscriminate employment in chronic endometritis is to be condemned.—Amer. Jour. Surg.

Owing to the continually increasing amount of material of value, offering for publication in the Annals of Surgery, the publishers have found it necessary beginning with the July, 1914, issue to enlarge the size of the page and also to somewhat reduce the size of type in which the original contributions have heretofore been printed. The enlarged size will also enable the publishers to make a better display of the illustrations which are such an important feature of the Annals contributions.

Thirty years ago when the first number of the Annals of Surgery appeared, the size and style then shown suited admirably. At that time a single number contained only 96 pages. They have continued to increase each year until now the average number of pages to an issue is 164. Special issues have been published in which the number has been increased to over 300 pages, with the result that the manufacturing of the Journal in the former style is not only extremely difficult but the finished product is unwieldy and cannot be read with the ease and comfort which is due a subscriber. In fact, it required constant pressure on the pages to keep them open.

We believe the new form overcomes this inconvenience and enables the publishers to give the reader more material and greater comfort while reading than it could have been possible for them to present in the former size.

The July issue has a choice collection of important articles of exceptional value to the general practitioner as well as the surgeon. It is a splendid example of the way this publication continues to set the pace in Surgery.

♣ ♣ ♣

The third annual Convention of the American Assoication for the Study of Spondylotherapy, will be held at Chicago September 21st to 24th, headquarters, Hotel La Salle. For particulars and program, address the Secretary of the Organization, Dr. S. E. Bond, 207 N. 9th St., Richmond, Ind.

The rapid advance of acceptance in the eyes of the best and most scientific of Medical Men as to the great value of Spondylotherapy and advanced Physical Therapeutics in one of the splendid achievements of this Association. The constantly increasing number of medical men in attendance at our Conventions, embracing those from all schools and from the leading medical societies and colleges of the United States is significant of the future status of united medicine.

The coming convention will fairly bristle with scientific result-getting work for everyday practitioners. Among the lectures will be three from Dr. Albert Abrams as follows:

1. New Data Concerning Abrams' Electronic Reactions in Diagnosis of Disease and the Making of Records (Pathograms).

2. New Data Concerning Human Energy and Its Instrumental Demonstration by the Psychophanometer.

3. The employment of Human Energy in the Treatment of Disease (Electronotherapy).

In addition, Dr. E. M. Perdue of Kansas City, Mo., will give some of the newest advances in Cancer Research, in the line of Spondylotherapy diagnosis. The latest mode of Fulguration by well known Eastern specialists, and Some Possibilities of the Use of Radium are among the scientific papers.

We cordially invite the medical profession to this Convention that's different.

♣ ♣ ♣

In vescial troubles of middle aged or elderly men do not at once jump to the conclusion that it is the prostate solely at fault. First exclude stricture and then proceed to examine the gland.

ABSTRACTS

SOME UNHEALTHY TENDENCIES IN THERAPEUTICS.

In the chairman's address before the Section on Pharmacology and Therapeutics at the recent meeting of the American Medical Association, Dr. John F. Anderson, Director of the Hygienic Laboratory, Washington, D. C. (Journal A. M. A., July 4, 1914), calls attention to some unhealthy tendencies in therapeutics of the present time. These, he says, have been particularly in evidence as regards the use of certain biologic products. While we formerly used to teach that drugs given in the mouth would relieve or cure, it now seems to be the fashion to teach, that in order to secure a surer and more lasting cure we must introduce the drugs into the body parenterally and some physicians seem to ascribe virtue to almost any preparation. Some agents that have been put forward with extravagant claims are clearly fakes, but others are of little more value, such as the Friedmann's vaccine, the Duket treatment, snake poison for epilepsy and other conditions, the use of bacterial products for rheumatism, etc., vaccines for the treatment of almost any ill; mineral oil for almost every form of constipation and various remedies for pellagra,—all these are among the things enumerated. Bacterial therapy is undoubtedly of value in some cases but it is being driven now far beyond its proper limitations and some of the widely exploited prepartions have been proven clearly harmful and have even caused death. Advances are necessary and clinical trials must be made, but only with adequate controls of untreated cases and the closest watching of every stage for the taking of an unbiased record. It is difficult to secure these things outside of a well-equipped hospital, but until a new treatment has received abundant confirmation of this sort is unjust, to use no stronger word to apply it promiscuously to patients not under constant observation and not amenable to instant emergency relief. Not only sales but attempts to ship dangerous biologic products in interstate traffic should be prohibited and not only that but excluding them and their advertising from the mails. After all, he says, it devolves on the medical profession to use wide discretion in their endorsement of prepartions and it should appreciate its responsibility.

HAY FEVER.

R. C. Lowdermilk, Galena, Kan. (The Journal A. M. A., July 11, 1914), reports his experience with pollen toxin in the treatment of hay-fever. The toxin was prepared from a mixed pollen of species of abrosia and solidago ground up with fine sand and suspended in salt solution. The water was pipetted off, centrifuged and sealed in glass ampules, each containing 1 c. c. For convenience, the unit suggested by previous workers was used, namely, the quantity of toxin extracted from one microgram (0.000,001 gm.) of pollen. Each cubic centimeter or ampule contains 10,000 units. "From the stock solution two serial decimal dilutions were made, containing one thousand and one hundred units to the cubic centimeter, respectively. By using a tuberculin syringe graduated in hundredths of a cubic centimeter it was possible to adminster doses containing and desired number of units while the total volume of the dose never exceeded 1 c. c. The site of injection was painted with tincture of iodin and the injection made subcutaneously in the usual manner. In no case was there any serious trouble at the site of injection." The dosage was determined by the nature and state of the reaction. The interval between doses was from

five to eight days at first, but this was later reduced to one or two days, depending on the time the reaction of the previous dose took to subside. In 3 patients who had long suffered from the disease, the treatment was begun about three months before the time of the annual onset and all obtained immunity after from six to eight doses had been received. In 16 patients treated after the annual onset of the attack, 13 were cured. The 3 not benefited began treatment more than a month after the onset of the symptoms. The reaction from the toxin is described as follows: It begins in from one-half to two hours. with an exaggeration of the usual symptoms of an attack; sneezing, lacrymation, itching of the eyes, cough, dyspnea in asthmatic subjects and sometimes edema and urticaria. In one of the cases mentioned the reaction was very severe but terminated suddenly after eighteen hours with no ill after-effects. In all cases complicated with a bacterial infection, injections of autogenous vacine were given, sometimes following and sometimes alternating with the toxin. Lowdermilk considers this an important part of the treatment. Unfortunately, he says, the method he describes is not suitable for use by the general practitioner, since to use it requires an intimate acquaintance with all the phenomena of immunity. He offers it in the hope that it will be taken up by others and the method so perfected that it may be within the reach of all physicians.

TOXEMIAS OF PREGNANCY.

The treatment of toxemias of pregnancy is a subject of a paper by A. J. Rongy, New York (The Journal A. M. A., July 11, 1914). Formerly these conditions were attributed to changes in the kidney, liver, brain, etc., but at present they are coming to be considered secondary to the effects produced by foreign substances in the blood of the pregnant woman. Abderhalden's observations are referred to and Wolff-Eisner has shown that foreign protein substances thrown into the circulation of the pregnant woman under certain conditions bring about a state of eclampsia. Normally these are neutralized by antibodies, but if the woman is unable to furnish these or the production of the foreign substances is excessive, the equilibrium of the material metabolism is disturbed and we have a toxemia. Clinically we recognize two varieties of this: (a) those occurring in the early months of pregnancy, characterized by nausea, morning sickness and in severe cases by the pernicious vomiting of pregnancy and (b) those occurring in the last three months of pregnancy characterized by headache, dimness of vision, slight epigastric pain, rise in blood-pressure, and albumin in urine. This last variety, unless promptly attended to, terminates in eclampsia. Prophylaxis is the keynote to the successful treatment of these toxemias. No one can tell when the symptoms appear, how soon they may become severe and be uncontrollable, and when the patient does not promptly respond to treatment, Rongy holds that the pregnancy should be terminated. Experience has taught us that these toxemias do not recur and we do not now consider a former eclampsia as contra-indicating future pregnancies. In the course of his experiments with fetal serum to bring on labor, Rongy's attention was first directed to the possibility that the toxemias are due to some former proteids originating in the product of conception and his success with the serum treatment of the later toxemias led him also to employ it in prenicious vomiting. We are justified, he says, in presuming that all women who pass through pregnancy and labor normally must necessarily produce certain elements neutralizing the toxic substan-

ces. Hence, the injection of serum from a normal, healthy, pregnant woman will not only add these but also stimulate the circulation into their increased formation. This treatment should be begun early before the maternal system is saturated with the poisons, and if it fails to cause improvement in from thirty-six to forty-eight hours it should be discontinued. His experience with the use of placenta serum consists of that gained in four cases of prenicious vomiting and three of threatened eclampsia, which are reported. In eclampsia the fatality depends on the degree of toxicity and not on the number of convulsions. The signs indicating the degree of toxicity are, the quantity of lucid intervals between convulsions and high pulse-rate. The presence of one or more of these symptoms is of grave import but if the urine excretion is not greatly diminished, the pulse-rate less than 120 and the mind clear between attacks, the prognosis is correspondingly more favorable. The experience with this class of cases in the Jewish Maternity and Lebanon hospitals is briefly given, both the operative and medical. The point specially made by him, is that the toxemias of pregnancy cannot be treated by any uniform method, and while he believes that the uterus should be emptied in all cases of eclampsia, each case must be individualized. There is a definite preclamptic stage and premonitory symptoms of pernicious vomiting. With this generally recognized the morbidity and mortality would be greatly reduced.

GASTRIC RESIDUUM.

M. E. Rehfuss and O. Bergeim and P. B. Hawk, Philadelphia (Journal A. M. A., July 4, 1914), give the result of their experiments with a modified stomach-tube as to the gastric residuum in the so-called empty stomach. It is generally said that it should not exceed 20 c. c. but recently Harmer and Dodd have shown that the stomach tube ordinarily used has a tendency to curl up in the stomach so that not all the material in the stomach can be aspirated. The authors have used therefore a modified tube with a weighted tip which seeks the most dependent part of the stomach and in which it may be left through the entire cycle of gastric digestion. The tip was slotted with large perforations and it was while using it for study on normal medical students that they, themselves, observed the discrepancies between its findings as compared with the findings of the ordinary tube. In no case did they fail to obtain more than 20 c. c. of residuum. They found that there was no single curve that could be construed as that of normal digestion. Each individual exhibits a certain tendency in the elaboration of the secretion whatever the test meal may be, an Ewald meal or simple water, and this suggested the fact that water itself was the simplest and perhaps the best test-meal. Their normal responses fell into three types: 1. In one, the "iso-secretory" type, the curve rose, gradually reached a maximum (the limits were from 50 to 60 in terms of tenth-normal sodium hydroxid), and then gradually fell. An Ewald meal was digested in two and a half hours. The second type showed a rapid rise, a sustained high point and little tendency to drop, even after the food had left the stomach in normal time; sometime afterwards secretion poured out for half an hour, one hour, or even several hours in certain cases. This is called the "continued" digestive secretion as distinguished from hypersection because it occurs in forty per cent normal persons. The figures in this type may approach 100 or over. The "hyposecretory" type is like the first type but the response is slower, the high point lower and less pronounced and digestion over

in a little more than two hours. It is in the hypersecretory type that the largest residuum is found and a residue of 50 c. c. which is without significance in this type may be of great importance in the others. The authors think that we must modify our opinion regarding the quantity of residuum, and the fact that 20 c. c. is exceeded in health lends color to the view that food rests are more important than the quantity. They sum up in the following conclusions: 1. The accepted limit of the normal residuum of the empty stomach as 20 c. c. is false. 2. The examination by means of the old stomach-tube, as demonstrated by Harmer and Dodd, and our own experiments is entirely inadequate. 3. The method of examination by means of the new modified stomach-tube is the only satisfactory method of determining the complete residuum. 4. On a series of healthy medical students the residuum in several instances was above 100 c. c. without any evidence of gastro-inestinal or general disorders. 5. The significance of this symptom in relation to the diagnosis of ulcer must be seriously questioned.

OSCULAR MANIFESTATIONS OF THE TOXEMIA OF PREGNANCY.

In reporting a case of paresis of the left external rectus and absolute central scotoma in the field of each eye, in a woman pregnant seven months whose urine contained 20 per cent of albumin, many cells and was alkaline, Dr. Ward A. Holden (Joural A. M. A., July 4, 1914), remarks that little is kown of the causes of the ocular manifestations of eclampsia and this case is reported as shedding some light on the question. Immediate induction of labor was advised in order to save the patient's vision, and the patient was delivered of a stillborn child. Within a month vision had returned with the exception of some night blindness. The macular region o fthe retina, formerly edematous, showed now an abnormal pigmentation. This spread and became more pronounced, seemingly due to the toxic condition of the blood which has produced the other conditions in the eyes. Dr. Holden cites authorities to show the effect of the altered blood on the pigment epithelium, and asks whether the visual or sixth nerve symptoms in his case might not have been caused by a bilateral edema of some parts near the optic chiasm, as the temporary character of the optic trouble would not indicate a true inflammation of the optic nerves. He conjectures that an edema, possibly of the anterior lobes of the brain, but more likely of the meninges and periosteum of the optic nerves and on one sixth nerve which lies near. Hence, it may be that an excess of certain salines in the blood may be the cause of the changes in the pigment epithelium which produce night blindness.

SEPTAL PERFORATION.

W. L. Simpson, Memphis, Tenn., (Journal A. M. A., July 4, 1914), describes a method of transplantation of cartilage or bone to close a septal perforation in the nose. The cartilage or bone gives a support and a place of attachment for the flap of mucous membrane and this prevents the reaction which is so liable to occur without some support. Before he tried this method his results in the closure of perforations were almost invariably bad, but since he has adopted it he has had very gratifying results. As a gereral rule the large piece for transplantation would be taken posteriorly to the perforation but if a larger piece of cartilage of bone is difficult to obtain in this way, it is a good plan to transplant from another deflected spectum in which a submucous operation is being made.

PAINLESS SPINAL CORD TUMORS.

After referring to a previous communication on the subject, Pearce Bailey, New York (Journal A. M. A., July 4, 1914), calls attention to the fact that many cases of spinal cord tumor may pass unrecognized because of the absence of the symptom of pain. That pain may be entirely absent while the other symptoms are typical of spinal cord tumor is, he says, no longer open to question, and he reports a case which on account of its painlessness had long been regarded as one of Pott's disease. It was one of intramedullary sarcoma of the lower cervical and upper dorsal cord of three years duration. Laminectomy was performed and the tumor could not be removed. The surgical recovery was perfect. Another case illustrating the fact that spinal cord tumors may escape diagnosis on account of the long intervals in which the pain symptoms are absent, is also reported. The lesion was in the cervical cord and had existed for eight or nine years, the motor symptoms gradually progressing but the pain symptoms intermittent. Death followed operation. A third case of extramedullary psammosarcoma of the upper dorsal cord, with no characteristic pains and with surgical recovery after the removal of the tumor, and still another one of intramedullary perithelioma of the dorsal cord, likewise without the characteristic pain, are also reported and still others are mentioned. Bailey calls attention to the importance of early laminectomy in such spinal cases without waiting for the appearance of the characteristic pain referred to the site of the lesion. If this is neglected too long, as it was in some of the cases reported, the opportunity of giving relief may be lost. Out of twenty-four laminectomies performed in the Neurological Institute during the year ending Nov. 30, 1913, there was only one death from the operation. In this it was performed for a suspected tumor of the cervical cord, a very risky location. In view of this slight mortality he feels less hesitation in recommending a more general resort to the operation. The article is illustrated.

CHESTNUT TOXEMIA.

On account of the alleged epidemic of poisonings and deaths from eating of chestnuts affected with chestnut blight, an investigation was made by C. Dwight Marsh, Physiologist of the Drug and Poisonous Fluid Investigations Office of the Department of Agriculture at Washington, who reports (Journal A. M. A., July 4, 1914), the result of the examinations in Massachusetts and New Hampshire. These resulted in fact, in demonstrating that there was no case of poisoning that could properly be attributed to this cause. It is well known that raw chestnuts are not very digestible and some persons may have an idiosyncrasy that may render their taking any quantity of them harmful. Most of the detailed symptoms of the cases reported can be accounted for in this way. Feeding experiments on a monkey, white rats and rabbits were entirely negative as regards any harmful effects so far as the nuts from the blighted trees were concerned and the conclusion was drawn that they were no more harmful than those from healthy trees.

NEOSALVARSAN.

Referring to his preliminary report in the Journal, U. J. Wile, Ann Arbor, Mich. (The Journal A. M. A., July 11, 1914) redescribes the method of treatment of syphilis of the nervous system advocated by Ravaut, and gives his recent experience in its use. In all, twenty-five intradural injections have been given in fifteen different patients; seven with tabes, three with paresis, three with cerebral spinal syphilis and one with taboparesis. The case his-

tories are given. Two of the patients are dead, seven are markedly improved paretics received only a single injection and were unaffected. One patient showed an improvement after a single injection, but relapsed, and one patient was improved as regards the oculomotor palsy, but the paraplegia progressed. In Wile's opinion the cases with cerebrospinal syphilis other than tabes or paresis, had done the best and those with tabes without rectal or bladder symptoms better than those in which these symptoms were present. The marked improvement in the objective findings in the spinal fluid following the treatment, leads one, he says, to hope that it is a move in the right direction in cases with central nervous involvement. The patients on whom it is used should be carefully selected and, for the present at least, this method should be restricted to cases where other treatments have failed. In all cases its dangers should be fully explained to the patient and his friends and they shoud share the responsibility for its administration.

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We are pleased to be able to announce that the ninth edition of Dr. H. C. Bennett's "Electrotherapeutic Guide," which has been in preparation for some time, is now almost ready for delivery. Dr. Bennett writes that copies will be available possibly the last of August and certainly in September.

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THE COST

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

Not infrequently, in the discussion of the question of dispensing, do we find much said about the cost of drugs and other supplies required for the proper practice of internal medicine. Those who argue that the doctor should not dispense tell us that the cost of obtaining and maintaining a sufficient stock is such as to practically make it out of the question for him to carry sufficient drugs to take proper care of his cases. They say that he cannot afford the investment and is very liable to stock his drug shelves with cheap and inactive agents.

Now let us see what a comprehensive drug stock will cost. If one were to carry every drug listed, which even the best stocked pharmacy rarely does, the cost would be considerable for the initial purpose. But it is not necessary for any doctor to have all the items listed, or one-half of them. As a rule, most of us practice medicine with but a comparatively small list of remedial agents, no matter whether we dispense or write prescriptions. In this day of the use of simples instead of long compounded formulas, we see the list of pharmaceuticals growing still smaller, as we are not obliged to carry numerous lots of compound tablets, syrups, elixirs, wines and whatnot in stock, as, for the scientific internist there is no requirement for the "shot-gun" mixtures.

If we employ the galenics we stock a few fluid extracts, and these in small amount, as we know that such articles are liable of deterioration, if carried on hand for a considerable time. $50.00 would undoubtedly cover everything required in this particular line of pharmaceuticals and give us a very comprehensive list, if the major portion were stocked in quarter pound packages. A like amount would furnish us with all the tinctures required in an initial stock. As fewer and fewer of the elixirs and syrups are being employed, another $50 would cover the initial investment, even though we purchased such goods in five pint or gallon containers. This would make an approximate investment of $150 for things of a galenic sort, and would give us sufficient to meet any and all indications for such drugs. Another $100 would cover the cost of such tablets of a compound nature that we might desire to stock.

Now that the plant drugs, or at least many of them, have, through the isolation of the proximate principles been reduced to their simplest and active forms, we find that the use of many of the galenics are not required. If one were to stock the entire line of these active principles, the cost would be from $500 to $1000, but here again it is not absolutely necessary that all such articles be included in the initial stock. The amount mentioned would cover not only the sim-

ple principles, the latter of similar nature of the compounds of the galenics. On going over the list and determining what would be required to meet the average number of indications, we find that not more than $200 would be required to give us a comprehensive stock of these latter forms of plant drugs.

Another one or two hundred dollars would give us all the chemicals absolutely required, and another hundred would give us other agents, not included within the pharmaceutical and chemical lists. This would bring the cost of the initial stock to the neighborhood of $600. To this should be added $50 for pharmaceutical apparatus, and $100 for bottles, corks, labels and other articles used in the dispensing of remedies. This would make the initial cost of the doctor's drug room come to about $700 or $800.

Another argument which is advanced is that the drugs cost too much to be handled except at a lost. Let us see if this is true. We will take the highest priced articles in every class in making our determination. As the fluid extracts and tinctures, with but few exceptions, are employed in very small amount, they become negligible in this consideration and no reckoning of cost thereof will be considered. The highest priced elixir, and one which is rarely employed, we find listed at $14 per gallon. This price is subject to a discount of 40%, which makes the net cost $8.40 the gallon, or approximately six cents per ounce. A four ounce bottle of this product would cost the doctor about 35 cents, which is not prohibitive, as is to be plainly seen. Passing on to the syrups, we find the highest priced listed is $8 the gallon, or net, $4.80, which makes the ounce cost approximately four cents, a four ounce package costing the doctor about 25 cents. The cost of wines and cordials are relatively the same as those of syrups. But the average of these articles cost only about half the amounts mentioned, so we see very clearly that the argument as to cost is based upon poor ground.

The highest priced pill is listed at $8.70 per thousand, of $5.22, list. This makes the cost of 100 a trifle over 52 cents. The average amount of pills dispensed may be taken as 25 and this makes the cost of each prescription about 13 cents. As most of the pills employed cost much less than the one considered, we again find the matter of cost not excessive. In the consideration of tablets, triturate and compressed sorts being considered together, we find the highest to be $7.05 per thousand list, or $4.23 net, thus making them cost a trifle over 42 cents per hundred, or a little more than 10c for the individual prescriptions. Here again do we find that the cost is not such as to be prohibitive. In going over the list of active principles we find the highest listed to be $13.25, net per thousand tablets, or $1.32½ per hundred, or at a cost of 33 cents for the single prescription of 25 tablets.

With all of the various classes mentioned, we find that the items most in use cost much less than the amounts cited, so that, in numerous instances the matter of cost of the average individual prescription might be considered as negligible.

If the doctor, as he should in the vast majority of cases, meets individual indications with single agents, the cost of drugs will be still further reduced, and he will find that, instead of having numerous compounds, of an expensive nature, in stock, there will be but few of these, and farther that, as years go on they will become still fewer. If he be employing the proximate principles of the plant drugs, he will be able to do his compounding with but little loss of time by either

putting the remedies indicated in capsules or watery solution, but here again will he form the habit of meeting his indications with single remedies.

Much has been said relative to the cost of time expended in dispensing; that the average doctor cannot afford to devote this time in the filling of his prescriptions. If what is said of the income of the average doctor be true, he has time enough and more, to follow such practice. If he is too busy his income will usually allow of his employing a pharmacist.

Another thing to be considered is the purchase of certain articles in quantity, that is more than the amounts usually listed. If a doctor is using any one thing in considerable amount, sufficient to justify considerable purchases, he will find that the manufacturers will usually allow a better discount. This serves to reduce the cost still lower. Another thing which still reduces the cost is having certain things, much used, packed in individual dispensing packages so that all the attention required from the doctor is the writing and affixing of the label thereto. This means a saving of time, which should always be considered as a portion of the cost.

While I do not believe that the doctor should handle his drugs with the idea of profit, I do think that he should receive sufficient above the cost thereof to carry his insurance, give him interest on his investment and pay him for time employed in dispensing. Consequently, if a prescription costs up to 10 cents he should get 25 cents therefor. If the cost is over 25 cents, 50c should be charged and so on in proportion. In some instances two or more prescriptions may be covered by a single charge and that not excessive, but sufficient to do all the things enumerated above. Even at the highest cost mentioned above, it is to be seen that the average prescription may be furnished at a cost to the patient of not exceeding 50 cents, and no person will object to a charge of that amount. And the doctor should make a charge for medicines furnished in addition to his professional fees.

After the initial stock is on his shelves the doctor will not find the cost of replenishment excessive. It is very probable that an expenditure of $25 per month will give him all he requires, if he be carrying on an average practice, and in all probability $50 will cover the wants of the busiest practitioner. If the doctor makes a reasonable charge for all drugs and other agents furnished, and does not give them away, the costs should not give him the least worry, as it is not he who is paying for them, but rather his patrons. And there is no reason why a patient should be furnished with his medicines gratuitously. The furnishing of medicines without charge therefor, almost invariably lowers the doctor in the estimation of his patrons and serves to destroy their faith in the agents so furnished. Of course, if the doctor is just starting in the dispensing business, or practice, if you please, the initial investment comes out of his pocket, for the time being, but it is returned thereto very shortly and therefore his patients pay for the drugs upon his shelves. Consequently this question of cost should not be a bugbear to any man within the profession.

Another thing to be considered in connection with the cost of dispensing, and one which adds considerably to the income of the doctor, is the fact that he does not so frequently lose sight of his patient, as does the prescription writer. The patient is obliged to return to the doctor for replenishment of medicines. In numerous instances farther examinations are necessary and for these the doctor is able to obtain additional fees, so that

practice of this sort adds, rather than detracts from his work as a whole. This serves to farther reduce his costs of doing business, indirectly, through the increase in professional fees. Dispensing also does away with any possible interference, on the part of druggists and others, with the treatment employed, and this also and not infrequently, adds to the income of the doctor. The dispensing doctor invariably holds his patient well in hand, the prescription writer never. And all this must be considered in figuring the costs. The dispenser's patient, not as a rule being cognizant of remedies employed, invariably returns to the doctor for subsequent attention. The patron of the prescription writer very frequently, instead of calling on his doctor for examination, has some old prescription, employed to combat a similar condition, refilled. The dispenser gets additional fees; the prescriber does not. And this figures in the cost. Taken all in all, the dispenser has every possible advantage over the prescriber, and not infrequently is he a better doctor, as he is better acquainted with the tools of his trade.

CHILD WELFARE

F. F. CASSEDAY, M. D.
Portland, Ore.

The movement for better children and better environment for children is a most laudable one, but in many quarters the purely physical side has been emphasized to the partial or total exclusion of other elements which are vital.

A child born of parents physically perfect and in splendid health has a heritage, which places the child far on the road to physical perfection and the ability to perform physical tasks and endure fatigue, but if the parents of such a child are below the average in mental and moral attributes it is possible the child will carry a handicap through life. A physically fit child may be a healthy and robust animal, but if such a child grows to manhood or womanhood without the full equipment which mental and moral training of a sane sort confer, then that child has missed the full complement of potential forces essential to a well rounded character. Sound health is not to be decried; on the contrary it is to be sought most assiduously, but it is not the whole thing.

Again many children feeble in early life develop into strong men and women, with a strong moral and mental equipment. Compensation plays its part in human life. This is observed in the various forms of partial physical disability. When the sight is lost the hearing grows more acute, and vice versa. A child physically below par will frequently show unusual mental alertness, and the converse is almost universally true. Defective children are usually stronger and larger than the average child, and defectives expend their energy and force in exercise and work requiring more than ordinary muscular force.

The effects of heredity, environment, and education are so blended in the development of the child that the influence of any one cannot always be accurately observed or measured.

Heredity exercises its influence upon the child for the most part through general weakness, or physical and mental tendencies, rather than in well defined forms of disease. Some exceptions to this may be noted. Certain forms of insanity, defectives born of closely related parents, or of parents low in mentality, conditions like cleft palate and hare lip due to arrested or

insufficient growth, and certain forms of cancer, show decided tendency to transmission from parent to child, but even these are not always transmitted from ancestry to child, and the fact of heredity cannot always be proven in these conditions.

General weakness, physical, mental, or both combined, in a child affords a fertile soil for the later development of any form of disease, but it would be an erroneous conclusion to claim that a child suffering from a disease, acquired under such conditions, inherited it from a parent or other ancestor. Physically weak children so often grow to adult life, and become strong physically, mentally, and morally, that it is unsafe to consign such to early death, or an adult life handicapped by physical weakness. Good food, good housing, good care, and good environment, do so much for some very unpromising human units that they frequently confound the judgment of excellent physicians. Prophecy is poor business at best, especially when it relates to the physical and mental future of a puny child.

With the exceptions noted Heredity exercises little influence upon the child. An infant is born with a brain like a wax tablet. An infant at birth is possessed of a will, but has no reasoning power. All the actions of an infant are elemental, and include crying from pain or hunger, reaching for food, in other words those of the vegetative sphere and concerned with preservation of life by food and protection from harm by outcries.

Environment and education are the real factors in the development of the child. Impressions from suggestion, from sight by imitation, from daily routine, from regular studies, from all sources through the senses to the brain where they make their impress on the waxen tablet of the brain never to be effaced or removed. The will is the dominant factor, until reason acquired laboriously by various educational means both voluntary and involuntary, has grown strong enough to become an active factor in the child's development. A child even learns to talk by hearing the human voice. An infant once burned fears the fire, but that fear is the result of automatic action, not reason. If your hand is burned it is withdrawn from the heat automatically and instantly before your reason can telegraph for relief. The process is purely protective. True a child may associate fire with pain, but any animal once burned shuns fire.

All through life the contest between will and reason continues, sometimes one is in the ascendency and sometimes the other. As the will has to do with the elemental desires and passions of the human animal, including the acquisition of food, and defense, it is necessary that the coordinate growth of the moral sense in the child should go hand in hand with growth and development of the reasoning faculty. Reason and moral sense are the guides and safeguards of the will. With all three of these fundamental attributes developed together the child, with parent and teacher working together will enter adult life prepared to initiate, select and develop. A child developed for physical perfection alone without equal education of the moral sense may become a degenerate or criminal. This may happen with or without cultivation and aducation of the reasoning faculties. Development of the mind alone may create exceptional mental resources, but a mere intellectual machine without other attributes, especially the moral sense, makes a poorly balanced human unit.

Religious training alone does not supply the need for careful and thorough grounding of the child in the moral side of his nature. It helps in a personal and individual way, but

there must be emphasis placed upon the obligation of the individual to society, and in all the relations of life.

In our competitive system selfishness becomes the ruling passions of mankind. The creative and constructive minds and the master builders of humanity have done their best and most effective work when they were inspired by love of the work, and not the financial reward. The reward has its proper place in the scheme of life, but when humanity becomes sordid, the soul becomes dwarfed and a permanent handicap is placed upon symetrical development of body, soul, and mind.

Well balanced men and women have the physical, mental and moral sides of their nature developed in harmony. Mere physical weakness is often no bar to great mental activity and usefulness, but a warped and crooked body is too frequently associated with a low cunning, which is the product of a lax, or total lack of, moral sense. A child derided for a deformity by his fellows will frequently become a cruel and heartless man. Many an active and creative brain is housed in a crooked and weakened body, and some of the world's greatest intellectual creations have sprung from the brain of physical weaklings.

The brain of an infant and child absorbs everything given to it. Every suggestion, every spoken word, good, bad and indifferent, are taken at par and for full face value before the reasoning faculties are sufficiently educated to sift out the material furnished. In order to estimate material supplied at its true value, in order to analyse and determine the effects of a certain course of conduct, and to build a good, well balanced, character and a discriminating mind, the cultivation and education of the reasoning faculties and the moral sense must be carried on together. The mind guides and directs the will. The will does not control the mind. The child brain absorbs the vicious and the unclean as well as the good and wholesome, therefore see to it that associates and environment are good and wholesome.

The environment is a very constant factor in the growth and formation of character, of habits, and of methods. Any system of education and training which leaves out of consideration the proper training of parents in child education is defective. Many parents have no conception of their resposibility to the child. Others through poverty are unable to cope with the problem at all. They all deserve earnest and well directed guidance in this most important of all work—the making of men and women.

THE HYPODERMIC.

If there is anything about the practitioner's armamentarium that is neglected more than another is the hypodermic syringe. The syringe is not always in a sterile condition and often the piston works badly and not infrequently the needles are blunt. The syringe should be of a pattern that is easily sterilized and this procedure should be done immediately after using it. Old needles are usually stubby and cause pain when they puncture the skin. The site of an injection should be in the loose tissues, avoiding so far as possible the supply of nerves, blood vessels and lymphatics. The site should be sterile. The needle should so far as possible be held parallel with the surface and it should penetrate just under the skin and be extended nearly its full length. If the needle is slightly withdrawn before the injection is made there will be little if any danger of injuring a blood vessel. Only enough water to dissolve the medicament should be employed, as the greater the infiltration the greater the amount of immediate pain.—Medical Summary.

ELIXER OF LONGEVITY

FRANK P. DAVIS, M. D.
Enid, Okla.

From the days when Ponce de Leon wandered through the swamps and cane-brakes of Florida in quest of the fount of eternal youth to the present time when men have vainly searched for a food or remedy that would ward off old age and stay the hand of Father Time, Brown-Sequard, a celebrated French physician, believed he had solved the problem in his famous Elixer of Life, a preparation which he hoped would store up vital force in such abundance that the body might stay the destructive elements and withstand the ravages of time. But Brown-Sequard, like Ponce de Leon, was forced to see his hopes blasted and to be compelled to surrender to the old general, Father Time, whose record to date recounts not a battle lost.

The quest for continued youth is not now attracting the attention of scientists and investigators so much as is the means by which the normal span of life may be lengthened. In this much progress is being made. The average span of life is longer by several years than it was before modern hygienic methods were adopted. Recent discoveries seem to warrant us in the belief that the problem has been solved whereby we may not only lengthen our stay in this world, but at the same time increase our efficiency and enable us to think greater thoughts and do more and greater work.

The problem is solved by adopting the old adage of sending a thief to catch a thief—by sending one germ into the system to produce a media that will destroy another germ that is creating a poison which in turn is the cause of old age.

If a certain germ is the cause of old age, as Metchnikoff tells us, and which we accept as true, then must we do as he proposes and send another germ into the alimentary canal to wage relentless warfare upon the evil germ. We find that the germ of old age has an antipathy for lactic acid, and then we learn that the Bulgarian bacillus makes a specialty of changing milk into this acid. Thus, the plan of attack becomes simple. The Bulgarian bacillus causes milk to sour or curdle, thus producing lactic acid. The bacilli bearing milk is eaten, the bacilli change it to lactic acid in the intestinal tract, and the acid destroys the "germ of old age."

Thus, we go back to our first and universal food and find the very thing for which Ponce de Leon wandered through the brambles in search. The fount of eternal youth must needs, however, contain milk and not water.

The healthy infant feeding at the fount—its mother's breast—grows strong. The strong man, possibly suffering from some wasting disease, is told to drink milk and he does so but without results. We are confronted with the question of why this should be true. It is because the infant receives no other food to interfere with the chemical processes going on in its labratory—the stomach—while the man who has eaten the germ bearing foods has so deranged the laboratory that the proper action may not take place. The stomach does not produce the curd like the infant's stomach does, and there is no lactic acid formed to overcome the germs that infest the alimentary canal, or else they are produced in such numbers that they cannot be overcome. You have noticed that when the healthy infant throws up milk it is generally curdled. The stomach of the older person not being equal to the task, we must artificially prepare the milk before introducing it into the stomach.

While to Professor Metchnikoff the world owes a debt of gratitude for his

experiments and researches that have made it possible for every one to prepare the real elixer of longevity in his own home, it was Dr. Tulbendjian, a Turkish physician, who twenty-five years ago called attention to the longevity of the Bulgarian people, and suggested that their national dish yoghurt (a Turkish word meaning sour-milk) might have some bearing upon the remarkable longevity of these people. Following the history of yoghurt farther we learn that Dr. Dubowski and Profesor Djiimiel made a report to the Medical Academy of Paris dealing with the medical properties of yoghurt. The name Bulgarian Bacillus was given to the germ found in yoghurt, and which is the lactic acid producer, by Tissier, Swiss scientist. Then came Metchnikoff who proposed to combat intestinal putrification and its injurious consequences by means of lactic ferment, and choosing the Bulgarian microbe as the best medium, gave to the western world the knowledge we now possess of this remarkable food and medicine.

Metchnikoff advanced the theory that old age is due to poisons and not years. His experiments tended to prove the correctness of this theory, and later experiments at the Pasteur Institute Paris, by the Japanese scientist, Okobo, and M. Dratchinsky have gone so far to confirm the position of Metchnikoff that the symptoms of old age are not due to the lapse of time, but are brought about by the absorption year by year of intestinal poisons. These intestinal poisons are brought about by the microbes that lodge in the large intestines.

Tests were made to determine the kind of food that permitted these poison-producing microbes to flourish. These tests tended to prove that a meat diet increases the production of these poisons, and that a milk or vegetable diet markedly diminishes the quantity.

In the evidence before us it is clear that a restricted diet tends to better health, and the proper amount of lactic acid will overcome the microbe that causes the poisons that are taken up in the blood stream and cause auto-intoxication.

The problem that now confronts the investigator is how best to get the lactic acid into the intestinal tract. If it is introduced by the mouth it will be absorbed before it reaches the colon. Here, then, is where the secret of Metchnikoff's discovery—the idea of introducing lactic acid producing germs into the intestinal tract so they can produce the lactic acid right at the spot where it is needed. The Bacillus Bulgaricus was the means hit upon, and hence we have yoghurt—the Bacillus bearing milk jelly.

The reason that true yoghurt has not been more generally known and used in this country has been due to a considerable extent to the lack of proper implements for its economical preparation. Now that the vacuum bottle has been perfected the preparation of yoghurt becomes a simple matter. The implements required are a vacuum or Caloris bottle, thermometer and a crock or jar.

Yoghurt should be prepared fresh daily. The steps necessary to insure a perfect product are not at all complicated. The first is to take sweet milk and boil down to one-half its volume, then pour into a porcelain or earthen crock, cover, and permit it to cool down to 115 degrees. Next dissolve in it two teasponfuls of condensed Bacillus Bulgaricus. Then pour the milk into the vacuum bottle, shaking it well at the time and again in about two hours. After ten or eleven hours remove and place on ice and it is ready for use. The acidity may be gauged to taste by the time

it remains in the bottle. At ten hours it is mildly acid, agreeable to most tastes, and the acidity will increase the longer it remains in the bottle. If left in too long the germs will change it to lactic acid, and the object of placing on ice is to inhibit this action. To serve, it should be beaten or well stirred. It will then appear as a smooth, white, thick fluid. It may be eaten with sugar or fruit juices if desired.

There are a number of tablets and other preparations on the market that simply change the milk to lactic acid, instead of multiplying the germs so they may produce the ferment after being introduced into the system. These have no merit over pure lactic acid, or common sour milk. This article deals with the genuine yoghurt prepared according to Metchnikoff's idea, with cultures of the Bulgarian bacillus, which may be obtained in various forms.

Yoghurt should be eaten daily, even though it is not made the principal article of diet, as it will prevent the formation of poisons by the germs in the intestines. It will tend to increase the span of life, and greatly increase the endurance and mental capacity if used persistently.

Medically it should be used in cases of auto-infection, weak and emaciated conditions of the body, and in nearly every form of acute and chronic disease. It is an important article of diet for athletes and those who must not only think but act quickly.

Milk has from the earliest times been recognized as one of the principle foods of the race, but it is only in Oriental countries that we find sour milk in the role of a national dish. The Bedouin Arabs of Egypt consider their Leben Raib or curdled milk one of their delicacies. In Russia a form of soured milk boiled with yeast is in use, which is called "Prostokwacha." The Tartars use Kephir, cow's milk, and koumiss, mare's milk, fermented. In Bulgaria the food of the peasant class consists principally of black bread and sour milk. Sour milk is the principal food of all classes in Roumania the whole year round.

Some remarkable facts were brought to light by the late census on the number of centenarians in the world, and it is well to note that the percentage is lowest in the meat eating countries and highest in those countries that use the sour milk diet. Thus we find the United States with 92,000,000 inhabitants has 46 centenarians; Germany with 66,000,000 inhabitants has 70 centenarians; Great Britain with 46,000,000 inhabitants has 94 centenarians; France with 40,000,000 inhabitants has 164 centenarians; Bulgaria with 4,000,000 inhabitnts has 3,300 centenarians; and Roumania with 6,000,000 inhabitants has 3,320 centenarians.

PROFESSIONAL IDEALS.

Persons brought up in the best psychologic atmosphere, used to home training, taught to respect the best in the universe, man and his possibilities, professions, business, science, art, life, health, growth, perpetuation, improvement have a high, exalted view of all these things. These are the people who are a credit to themselves, their day, their generation, their country, their profession. The best psychologic atmosphere may or may not have been in the homes of the wealthy or well-to-do. It is just as likely to have existed in the homes of the poor. Money never buys it though it may help to achieve it by affording the necessary time to make mental culture possible and against adversity. Training at home is reflected in the children, though they may depart from the teachings when they have grown up.—The Medical World.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 183 July Recorder)

DIABETES MELLITUS.

As long as sugar appears in the urine the diet should be carbohydrate free. With the control of sugar excretion a more liberal starchy or sugar diet may be allowed, based upon the tolerance of the patient to such articles of food. Van Noorden's or a like diet is suggested. Elimination by the bowel, skin and kidneys should be stimulated and the digestion given tone. The bowels should be cleared out, cleaned up and kept clean. Laxatives are invariably indicated as are the sulphocarbolates subsequently, the latter to be followed by the culture of Bacillus Bulgaricus. To restore tone to the stomach and bowel, Juglantoid or Quassoid, or the two combined, one hour before meals and if necessary one of the digestive compounds after. To restore nerve tone, Neurolecithin. To control obstinate glycosuria Liquor Arsenii Comp. (Barclay), arsenous bromide or Codeine, although these are not usually required when Neurolecithin is pushed to its full effect. The following to improve vitality, increase blood crasis, stimulate hepatic function and to correct urinary hyperacidity, may be useful frequently: Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-64; Lithium benzoate gr. ½; Quassoid gr. 1-64. For autotoxemia and as an intestinal antiseptic, Strontium salicylate has its indications. The following have the indications noted: Santonin as a tonic; Codeine to control glycosuria; Ergotoid for its contractile powers on the circulation; Collinsonoid as a diuretic and alterative; Pilocarpine for its sudorific; Aletroid for its tonic effect; Bilein to restore intestinal digestion and overcome autointoxication; Lithium carbonate as an antacid and diuretic; Acetanilid to equalize circulation; Quinine arsenate as a tonic and alterative; Creosote carbonate as an intestinal antiseptic; Atropine to flush capillaries and thus relieve kidneys and as a synergist to other remedies. Saccharine to replace sugar as a sweetener.

DIARRHEA.

Withhold food until condition is checked; at least 24 hours and give fluids sparingly. Clear out bowel with warm water or physiologic salt solution. Exhibit calomel, 1-6 gr. every fifteen minutes until 1 or 2 grains have been given and two hours after last dose give a saline or Castor Oil to effect, or until the bowel is thoroughly cleaned out. Then follow with the sulphocarbolates grs. 5 to 15 till the bowel discharges become normal. If there is pain, instead of the sulphocarbolates give the following: Zinc sulphocarbolate gr. 1; Codeine sulphate gr. ¼; Strychnine sulphate gr. 1-128: or, Zinc sulphocarbolate gr. T; Codeine sulphate gr. ⅛; Hyoscyamine sulphate gr. 1-2000; Strychnine sulphate gr. 1-128. If a greater astringent is desired more Zinc sulphocarbolate may be added. If there is much pain, Hyoscyamine hydrobromide gr. 1-200; Morphine hydrobromide gr. ⅛; Cactoid gr. 1-128, hypodermically; or Hyoscyamine hydrobromide gr. 1-400; Morphine hydrobromide gr. 1-16; Cactoid gr. 1-128; Pilocarpine hydrochloride gr. 1-64; Caffeine gr. 1-32, by the mouth. For fever, acontine to effect, or relaxation of pulse. If sub-acute or chronic, and there is collapse, Atropine to bring the blood to the surface and thus relieve internal congestion meets the indication, this to be combined with Brucine or Strychnine. As intestinal antiseptics Copper arsenate or Copper sulphocarbolate in solution, to effect with the Atropine and Brucine or Strychnine.

When condition is under control then follow with treatmet outlined for acute condition. Nuclein is indicated to increase resistance and maintain vitality. Hyoscyamne and Atropine both to control pain and flush the dermal capillaries. Hydrastoid, the bismuth salts and Tannin are indicated as astringents. The following have their indications: Gallic acid gr. 1-12; Codeine sulphate gr. 1-32; Copper arsenate gr. 1-500; or, Gallic acid gr. 1-6; Morphine sulphate gr. 1-64; Bismuth salicylate gr. 1-6. The normal diet should be resumed slowly, with digestive compounds, as indicated before and after, with the culture of Bacillus Bulgaricus with meals.

DIPHTHERIA.

Even in suspected cases and before the bacteriologic test has shown the Klebs-Leoffler bacillus present, antitoxin should be administered in full dosage, from 3000 to 10,000 units. The larger dose is now found preferable in practically all cases, as it jugulates the disease promptly. An immunizing dose of 1000 units should likewise be administered to all who may have been exposed to possible infection. In addition to the antitoxin, saturate the patient with Calcium sulphide to combat infection generally. Iodized Lime as an alterative and for its selective action is indicated in most cases. Calcium sulphide may also be given to attendants with good effect to combat infection. The toilet of the nose and mouth should invariably be given attention. A spray of a mild, watery, alkaline, antiseptic solution should be followed by one of Camphor and Menthol of each grs. 20 to the ounce of liquid Petrolatum. At the first appearance of throat involvement use as a gargle Loeffler's solution, a solution of Potassium permanganate, or one of Thuja and Echinacea. As systemic antiseptics, Echinacoid gr. 1 and Calcium sulphide gr. 1-3, alternated with iodized Lime gr. 1 to 5, every two hours. To control fever, one of the following: Aconitine hydrobromide gr. 1-800; Digiltalin gr. 1-64; Veratrine hydrochloride gr. 1-128; or, Aconitine hydrobromide gr. 1-3000; Digitalin gr. 1-250; Veratrine hydrochloride gr. 1-500: or, Aconitine hydrobromide gr. 1-800; Digitalin gr. 1-64; Strychnine arsenate gr. 1-128: or, Aconitine hydrobromide gr. 1-3000; Digitalin gr. 1-250; Strychnine arsenate gr. 1-500. Nuclein to sustain vitality and to induce leucocytosis in invariably indicated. This should be given in from 20 to 60 minims, hypodermically, at intervals of from 6 to 12 hours. The bowels should be kept clean by the use of the sulphocarbolates, to effect. The diet to consist of concentrated and readily assimilable food. The culture of Bacillus Bulgaricus on the tongue may assist in removal of the membrane and is worthy of a trial. The skin should be kept active by warm, Epsom-salt sponge-baths and Pilocarpine may be used (but always cautiously, bearing in mind possible weak heart in all cases), if there is marked inactivity of the skin. If the membrane does not part readily apply one of the following: Methylene blue (medicinal) grs. 8, Papain drams 2, Milk Sugar drams 2, by insufflation: or, with a swab the following, Papain dram 1, Phenol drops 30, Glycerine drams 2, distilled water drams 6. The powder to be used every two hours and the solution every 15 minutes for a few hours, then every two hours, through the full 24 hours, to effect. In the convalescent state the following are indicated: as an alterative and promote absorption, arsenous Iodide; to overcome tendency to diphtheric paralysis, Strychnine or Brucine in full dosage to effect; as tonics the following: Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; iodized Lime gr.

1: or, Iron phosphate, Calcium phosphate, Potassium phosphate and Magnesium phosphate of each gr. 1-12, with Nuclein solution m 4; to support the heart, Digipoten. Baptisoid may also be employed to stimulate the heart. As antitoxin does not remove the local infection, the throat, mouth and nose should have attention for some time after the subsistence of the disease, in that the patient may not remain a diphtheria "carrier." Locally antiseptics are indicated and the general vitality of the patient should be raised to the highest possible point. If antitoxin, combined with the systemic antiseptics are pushed to full effect, the disease usually is early controlled. It should be remembered that a full dose of antitoxin at the earliest possible moment is invariably indicated. Never be fearful of exhibiting too large a dose, within reason.

DROPSY.

Invariably ascertain the underlying cause and never institute treatment without so doing. To clear the bowel Elaterin or Elaterium, followed by Apocynoid. Cactoid to sustain the heart should be given with every dose of Apocynoid. The remedies should be pushed until the stools are watery and free. If due to faulty heart action the indicated remedies are Digipoten, Digitalin, Sparteine, and Canvallamarin. As diuretics. Arbutin, Barasmoid, Eupurpuroid. To increase skin function and promote sweating when the tissues are water-logged, Pilocarpine hypodermically in selected cases, with care however, if there is cardiac involvement. Morning doses of saline laxative, to promote elimination and get rid of fluid is invariably indicated under all conditions. The skin should be kept active by Epsom-salt baths, hot pack or electric-light bath. The diet should be salt free, or nearly so and fluid should be cut down to the lowest possible point. Those agents which will raise vitality to highest possible point are always indicated.

DYSENTERY.

Within the past few months a revolution has taken place relative to the treatment of this disease. It has long been known that Ipecac had a good effect, but that it was nauseating if given in effectual dosage, interfered decidedly with its use. Emetine, one of the active principles of the drug had also been used by the mouth, but it too, was nauseating, if used to effect. Recently Leonard Rogers of Calcutta found that Emetine hydrochloride, gr. 1-3 to 1, given hypodermically two or three times a day, controlled, and in many instances brought about a satisfactory termination of the disease, especially in the amebic form. There is no nausea or vomiting when the drug is exhibited hypodermically. All symptoms, under this treatment, usually subside with four days, and entirely. This mode undoubtedly settles the treatment of the amebic form of dysentery. Emetine hydrochloride also seems to be indicated and to have a good effect in other forms of the disease. To equalize the circulation, Aconitine meets the indication, with Atropine or Hyoscyamine to flush the peripheral capillaries and bring the blood to the surface, thus overcoming internal congestion. For pain and tenesmus the Hyoscine, Morphine and Cactoid compoud, hypodermically. or a modification thereof by the mouth. The bowel should be cleared out thoroughly in every instance, followed by the sulphocarbolates to effect; or by Strychnine arsenate gr. 1-64; Atropine sulphate gr. 1-500; Hydrastoid gr. 1-6, at intervals of two hours for the tonic astringent effect. The following may be substituted for the last mentioned combination: Zinc sulphocarbolate gr. 1; Codeine sulphate gr. ¼; Hyoscyamine sulphate gr. 1-1000; Strychnine sulphate gr. 1-128. After tenesmus is

controlled, Emetoid, a full grain at night, for its Ipecac effect, is frequently indicated and gives good results. Menthol gr. 1-12 to 1-6 may be given in conjunction with Emetoid if there is a tendency to nausea or vomiting. Enemas of hammamelis and calendula or a solution of the sulphocarbolates are useful, both to combat local infection and as astringents. If there is ulceration, silver nitrate solution injections. The intestinal antiseptics should be continued for at least two weeks after convalescence is established and the tonics, Hydrastoid, Strychnine and Quassoid should be exhibited over a considerable period. The culture of Bacillus Bulgaricus is indicated to inhibit action and effect of pathogenic organisms within the bowel. This should not, however, be exhibited in conjunction with the chemical antiseptics, else it be destroyed. Tonics and altratives, as Juglandoid, Barberine, Baptisoid, Asclepidoid, Echinacoid, Mercuric chloride, Rheoid, Piperine and Capsicum have their indications. The two last name are useful in overcoming the general relaxation of the epidemic form of the disease. Baptisoid should be pushed to full effect. Quinine is also useful in the destruction of the ameba as is Emetoid, and should be pushed by the mouth, or by injection of a 1-1000 solution of Quinine hydrochloride, well up in the bowel.

DYSMENORRHEA.

Do not give opiates or other narcotics. Correct displacements and other abnormalities. Treat pelvic congestion Glycero-gelatin suppositories, carrying Magnesium sulphate, introduced at night and followed next morning with hot alkaline douches. Hot Epsom salt compresses locally, with Anodyne rectal suppositories may be effective. To relieve the pain and spasm, if severe, hypodermic application of the half strength Hyoscine, Morphine and Cactoid combination, or a modified form thereof by the mouth, followed by the following every three hours: Helenin gr. 1-12; Virburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12. A combination of Cannaboid, Atropine, Caulophylloid and Macrotoid also acts well as an antispasmodic. In some cases Gelseminine hydrobromide, followed by Cannaboid, brings about a satisfactory termination. These to be followed by the last mentioned combination or Aletroid and Vilburnoid. In frigidity, with anemia, the following combination may be effective: Strychnine hypophosphate or Valerate gr. 1-128 to 1-64, Capsicin gr. 1-128 and Sanguinarine nitrate gr. 1-64, every hour to effect. If of obscure origin, or due to being constantly on the feet, give one of the following formula, three times a day for a week or more prior to anticipated period: Aletroid gr. 1-12; Byronin gr. 1-500; Caulophylloid gr. 1-6; Macratoid gr. 1-6; Helonoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000. Best given in a little hot water. Acetanilid, monobromated Camphor or a combination of Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s., may act as reliable antispasmodics.

DYSPHAGIA (DIFFICULTY IN SWALLOWING.)

Strychnine and Quinine valerate, in full dose to effect, for nervousness or hysteria. As relaxants, if there is hypertone, small doses of Hyoscyamine, or the bromides, or the following: Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. Menthol, dissolved on the tongue, and swallowed slowly may relieve. If there is flatulence, a few drops of Oil of Cajeput, in a little sugar. Look for foreign growths in the throat, or for ulcers or inflamed areas.

DYSPNEA.

See asthma. Always locate cause as this is important as a guide to the proper treatment of the symptom. In asthmatic cases, Aspidospermine sulphate gr. 1-64 to 1-12 at half-hourly intervals usually gives results and is claimed by some to be a specific. If due to cardiac conditions Cactoid, Digitalin or Digipoten are useful. As an antispasmodic the following is frequently effective: Glonoin gr. 1-250; Strychnine arsenate gr. 1-64; Hyoscyamine sulphate gr. 1-1000, to be repeated every half hour to effect. This symptom is frequently due to autotoxemia in numerous instances and this should be looked for.

DYSURIA.

See cystitis. To increase the flow of urine and to act as an antispasmodic a combination of Arbutin and Hyoscyamine, although as antispasmodics Gelseminine, Coniine, or Cannaboid may be indicated. Either remedy to be given with full glass of cold water. If there is urinary alkalinity, the indicated remedies are either Boric acid or Ammonium benzoate. For hyperacidity the Sodium and Xanthoxyloid combination of Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500 with Aromatics q. s., either to effect. If there is spasm of the sphincter either Lobeloid or Lobeline sulphate. Hydrastoid or Collinsonoid, as tonic alteratives may be indicated, as well as many other agents. Local applications, as Anodyne suppositories, per rectum, or antiseptic solutions per urethra, may be indicated. Look for and correct cause in all instances.

EARACHE, OTALGIA, OTITIS.

The cause should be located as a guide to treatment. It may exist within the ear proper, as foreign bodies or impacted serumen in the canal, or there may be tooth destruction with nerve involvement, or disease of the throat or nose may be the causative factor. Or the mastoid may be involved. Insects may enter the external canal and be the cause of pain. To remove cerumen first inject hydrogen Peroxide, followed by warm, alkaline solution. To kill and remove insects, warm carbolized Oil. Foreign bodies may require the use of instruments. To relieve congestion, Hyoscyamine or Atropine. If there is flushed face, first Aconitine in small dose. If this does not relieve give alternately, Gelseminine, with Aconitine in larger amount, aspecially if the fever is high. To abort abscess, if threatened, Calcium sulphide to saturation, with Echinacoid. The bowels should be cleared out with Calomel, followed by salines. To reinforce the leucocytes, Nuclein, 10 m three times a day. The external canal should be kept clean by application of antiseptic solutions, both watery and oily. Locally for pain a three per cent solution of Stovvaine, or a solution containing Cocaine grs. 5; tincture of Opium drams 2; Glycerine drams 2. 3 to 5 drops on cotton to be placed in the ear every 3 to 6 hours. Internally to relieve pain, Acetphenetidin, Anemoinin, Coneine, or one of the following formulas; Caffeine gr. ½; Sodium bicarbonate gr. 1; Acetanilid grs. 3½; or, Salicic acid (natural) gr. 1; iodized Lime gr. 1-3; Colchicine gr. 1-250; Bryonin gr. 1-128; Macratoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s.: or, Salicylic acid (natural) gr. 1; iodized Lime gr. 1-3; Stillingoid gr. 1-6; Colchicine gr. 1-250; Bryonin gr. 1-128; Macratoid gr. 1-12; Aromatics q. s. The bacterins are frequently indicated in otitis media and in mastoiditis, the Strepto-bacterin and Pneumo - Combined - Bacterin every eight to twelve hours till symptoms are better, then every two to seven days. Supect diabetes in obstinate cases with abscess. Surgical interference, always, if there is pus formation.

ECLAMPSIA.

See uremic convulsions. The doctor who sees to it that free elimination is stimulated during pregnancy, need have little fear of eclampsia. If convulsions do occur they should be controlled by hypodemics of Veratrine with Elaterin by the mouth every half hour, the latter to free purgation. The patient should be placed in hot, wet pack with cold to the head. To relax, either Lobeline sulphate or Lobeloid to effect, the Hyoscine, Morphine and Cactoid combination or Chloroform by inhalation to sedate. Large enemas of solution of Epsom salts, two ounces to the pint, to assist in clearing the bowel. In emergencies Croton Oil, drops 2, may preceed the Elaterin. Normal salt, by hypodermoclysis or intravenously, may be required to sustain vitality. Cactoid to sustain the heart; Pilocarpine to stimulate elimination by the skin and Croton-chloral hydrate to sedate, are frequently indicated. As a last resort, if necessary, empty the uterus quickly. As a rule tihs is not required if the above outlined treatment is followed.

ECZEMA.

This disease calls for stimulation of the eliminating organs, and for tonic alteratives. Calomel and Irisoid, of each gr. 1-6 should be given at half hourly intervals for from four to six doses at night, followed by morning saline in acute cases. Thereafter omit calomel, but give Irisoid with Cascara and salines as an alerative give the following: Echinacoid gr. ½; Irisoid gr. 1-3; Rumicoid gr. 1-3; Alnuoid gr. ½; Cascaroid gr. ½, one or two three times a day with washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; with carminatives q. s. after meals. The latter may be alternated week and week about, with the arsenates of Iron, Quinine and Strychnine with Nuclein. To increase elimination of urea and solids, Xanthoxyloid and Boldine before meals with Strychnine or Brucine. If there is acidemia, the Sodium and Xanthoxyloid combination meets the indications, as may the following: Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s. The sulphocarbolates are invariably indicated in all cases in that the bowel may be kept clean. Arsenous Iodide, as an alterative; Pilocardrastoid, as a tonic alterative; Pilocarpine to stimulate elimination by the skin; Podophyllin as an hepatic stimulant; Resorcin as an intestinal antiseptic; Zinc phosphide as a succeedanium to Phosphorus; Berberine as a general tonic; a combination of the following as an hepatic stimulant: Chiomanthoid gr. 1-6; Apocynoid gr. ⅛; Leptandroid gr. 1-6; Podophyllin gr. 1-16; Irisoid gr. 1-6; Asclepidoid gr. 1-6; Colocynthin gr. 1-100: and as a tonic the following: Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4. The Staphylo-Albus-Bacterin or Staphylo-Bacterin-Combined are frequently indicated. Locally, the affected area should be cleansed with a suds from a soap containing the distillate from shale tar, after which equal parts of an oil carrying like distillate with equal parts of resin ointment may be applied. The following may be applied locally: Dried Alum grs. 5; Ichthyol grs. 10; Phenol grs. 5; Basillicon ointment q. s. to make 1 oz.: or the following oily mixture consisting of Camphor gr. 2-3; Menthol gr. 2-3; Phenol gr. 2-3; Thymol iodide gr. 2-3; with Oil Tar, Cassia and Eucallptus q. s. in a purified vegetable oil vehicle to make 1 oz. If oily applications are contraindicated the following may be used with good results, powders containing the sulphocarbolates, boric acid and talc, with or without Zinc stearate

added. The diet should be regulated in all cases.

EMPHYSEMA.

For dyspenea, Aspidospermine; to relax, Lobeloid, Apomorphine or Emetoid; to liquefy secretions, Calcium sulphide, with Scillitin to stimulate expulsion. Force elimination, always. To support heart, Digitalin, Digipoten, Strophanthin, Strychnine or Cactoid, accordig to indications. For the cough, Codeine or the following: Ammonium chloride gr. ¼; Extract Licorice gr. ⅛; Codeine sulphate gr. 1-32; Cubeb oleoresin gr. 1-32. Surgical interference may be necessary in some cases.

EMPYEMA.

Remove pus at once, either by rib resection or aspiration, the former as a rule, by preference. The cavity should be washed out with weak solutions of either Creolin, Phenol, Salicylic acid or Iodine, with Nuclein hypodermically, subsequently. As alteratives the following: Nuclein solution m 10; Guaiacol carbonate gr. 1; iodized Lime, or Calcium sulphide and Echinacoid. Nuclein, to bolster up the leucocytes is always indicated and should be exhibited hypodermically. The Bacillus Lactic Bulgaricus with meals to keep the bowel clean. The respiratory and cardiac stimulants, as Strychnine, Digitalin, Cactoid or Digipoten are frequetly indicated. Small doses of atropine may be indicated to overcome local congestion. As reconstructants the following: the arsenates of Iron, Quiine and Strychnine with Nuclein; or, Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32: or, Neuro-lecithin or Arsenous sulphide. The bacterins the Pneumo-Combined-Bacterin, the Combined-Bacterin (Van Cott) or an autogenous bacterin are invariably indicated, according to the bacteriologic tests.

(To be Continued)

DONT'S FOR CHILDREN WHILE IN STREETS.

Containing many "Nevers" and "Always" a pamphlet has just been sent out by the American Museum of Safety to be distributed among families on the East Side and in Brooklyn and other sections where children are thickest, bringing home to little boys and girls the danger of not thinking when run into the streets. It is entitled "The Little Girl Who Didn't Think," and Dr. William H. Tolman, director of the museum, believes it will be a great thing toward saving child life.

The little pamphlet tells the story in picture form and prose of the terrible things that happen to children who ran into the streets when wagons and cars are about. Some of the instructions read:

"Never jump off a moving car.

"Never stand or sit on the car step, nor put your head or hands out of the car window.

"Never get off a car facing the rear. With the left hand take hold of the handle, left foot to the step, right foot to the ground; face forward.

"Never fail on leaving the car to look out for passing wagons and automobiles.

"Never run in front of a passing car.

"Never hitch on and steal rides behind street cars or wagons.

"Never play on car rails.

"Never cross a street except at a regular crossing.

"Never take chances.

"Always in passing behind a car look to see if another car, automobile or wagon is coming from the oposite direction.

"Always look both ways before crossing a street.

"Always safety."

These instructions will be helpful for grown persons and children as well, in the opinion of Dr. Tolman.

MISCELLANEOUS

HOMELY REMEDIES AND METHODS.

By W. T. Marrs, M. D., Peoria, Ill.

I sometimes become so bored from reading the literature of the new and ever-growing number of remedies, of sera and bacterines and specifics for the cure of this or that disease that I almost turn iconoclast and think about as much virtue lies in old-time medicine as in our up-to-date pharmacopoeia with its socalled precision. Who can have any faith in the cures reported from the use of tuberculosis specifics? Any agency capable of producing positive results would not be long in being carried to the corners of the earth inhabited by afflicted humanity.

It cannot be questioned that pharmacy has improved many medicines, making them more palatable to take as well as removing certain toxic and deleterious elements. Generally speaking, remedies have been improved in nicety and therapeutic exactness. Often, however, the elegant manner in which a remedy is presented is at the cost of its therapeutic worth.

We have too many remedies, commercial and proprietary. You can scarcely think of a weed or plant native to any corner of the earth that has not the reputed quality of being "good for" some ailment. It is hard for us to break away from the more or less sacred adage that the herbs were created for the healing of the nations.

Take hypnotics, for example. There are scores of "new" and "newer" sleep-coaxers presented to a sleepless and nerve-jaded world. They are all branded "safe" and a fling is incidentally hurled at the old stand-bys, chloral and bromide of potassium. Yet the majority of "new and safe" hypnotics are just as habit-forming and just as dangerous to fool with as the older and more despised remedies.

If we reduce the drug business down to its last analysis we find that there are only a few drugs worthy of wide application. The new syphilitic remedies exert a therapetic role that entitles them to a little niche of their own, but they can not supplant entirely the old time-tried mercury and iodide of potassium.

Many chronic disorders in which peculiar treatment has been tried have finally wound up with a course of iodide of potassium to which they became surprisingly responsive. I have oberved extremely stubborn cases of eczema which had "tried everything" melt away under a long course of Fowler's solution and potassium iodide.

Calomel comes the nearest being a stimulant of every gland that secretes a fluid. I have often wondered why some adroit manufacturer has not invented something to take its place, since calomel and all other mercurials are "poison," produce salivation, "settle in the bones," etc. (?)

Cascara sagrada is a most excellent remedy but of late it seems that much of the cascara on the market is almost inert. The best quality of cascara bark seems to be growing scarcer.

Castor oil! An old and much-hated remedy. It is one of our best all-around curative agent for the alleviation of numerous symptoms. A course of castor oil will soak out scybila that have been inhabiting the alimentary canal for days or weeks with no intention of moving or paying rent. Along with their going goes autotoxemia with its anemia, chronic headache, rheumatism, etc. Still it takes nerve on the part of the doctor to prescribe a nasty and

homely old thing like castor oil to good paying patients.

As much can be said of epsom salts. It is claimed that a course of salts will remove warts. Anything with such therapeutic potentialities ought to be worth considering.

The physician who practices medicine in the old way can accomplish much good to humanity, although it will be little apreciated by his clientelle and his pay will be infinitesmally small.

MUSHROOMS.

By William F. Waugh, A. M., M. D.

The season for poisoning by toadstools is present, and some information upon these dangerous plants may be acceptable.

The great danger as to mushrooms lies in the misinformation that is so prevalent. While most poisonous forms grow in or along the edge of woods, they have also been found on sunny lawns. The peeling of the pileus or cap, blackening of a silver spoon, and other popular methods of detecting toadstools are all fallacious. The only safety lies in classifying your specimen by the aid of a flora, and rejecting any unkonwn variety.

More than 6,000 varieties of fungi have been described in America, of which not half a dozen are poisonous. The rest are edible and wholesome, many delicious; and collectively they offer freely for the gathering of a valuable food-suply which is not utilized for the want of the little knowledge, here supplied.

The poisonous mushrooms belong to a single family, the amanitas. These may be recognized by five points: The stem shows a collar below the cap; the end in the ground is expanded into a bulb somewhat like an onion; that is surrounded by one or more scales forming an imperfect sheath; the stem is hollow; and when the cap is placed on a black paper and allowed to stand some hours the spores deposited on the paper are white.

The collar may be broken away; the bulbous expansion may be left in the ground by the finder, or it may be but slightly larger than the stem above it; may contain cottony fluff or threads; but the presence of any three of these characteristics, especially the white spores, should suffice for the rejection of the specimen. It is well to examine several plants, if they are to be had, before deciding. In case of doubt, pass it by.

Besides, the Boletus luridus and other boleti are unwholesome; and as the varying varieties are not easy of recognition, and no boleti are very pleasant eating, it is well to reject all of them. They are easily known as the pileus or cap displays pin-holes in a solid mass instead of the slats or gills of ordinary mushrooms—look at the under surface of the cap for these.

Lepiota Morgani is at times poisonous. It is an immense plant, the cap may be a foot in diameter, with a ring or collar, and greenish gills and spores. It occurs from Ohio, south, and west, in grassy places, sometimes forming fairy rings. Russula emetica is widely distributed, in pastures and under trees; pileus fleshy, quite viscid, expanded, polished, shining, oval or bell-shaped when young, rose-red to yellow or even purple; margin furrowed, flesh white; gills free, equal, broad, distinct and white, stems stout, solid or occasionally spongy; spores spherical; easily recognized by acrid taste and free gills. Some have found these poisonous, others eat them with impunity.

Several other varieties have been under suspicion, but it is probable that they are only toxic when they are decomposing or contain worms, as many

have eaten them when fresh without harm following.

This applies to all mushrooms. Take none that are withered or show signs of age; have them cooked the day they are gathered; pick out the stem and look closely about its insertion for worms, rejecting any that are inhabited; and never eat any mushroom raw. Any of them may be poisonous if decomposing or wormy.

The toxins of mushrooms are two—a hemolysin found especially in Amanita phalloides, doubtfully and in smaller quantity in Amuscaria and other varieties. No known antidote exists, but milk is said to supply an antihemolysin. This points to the probability that nuclein hypodermically injected may prove effective, and it should be tried. Then as the hemolysins are closely related to the diphtheria toxin, antitoxin may be found of value. Apart from these strictly experimental measures the problem consists in keeping the patient alive until the poison is exhausted and the blood renewed.

Muscarine is the other toxic principle, and is found in all the poisonous forms of mushrooms. It resembles pilocarpine in action, but concentrates its force rather on the stomach and bowels. The symptoms may appear in one hour after eating the plant, or may be latent up to fourteen hours. The skin becomes white and cold, with sweating, diarrhea and vomiting, which may be at first painless and free from nausea. Later, as the discharges deprive the blood of serum, cramps in the legs, and colicky pains, may occur. Thirst follows the loss of serum. The pains may be very severe, with facies Hippocratica, mucous and bloody stools, or constipation, cyanosis and subnormal temperature later; convulsions and death in two to eight days.

The clinical pictures given are so complicated that it is probable there are other toxins in some of the mushrooms eaten. Muscarine as we get it is difficult to use as a medicine from the extreme rapidity with which it passes out of the body, so that intravenous administration is requisite. It seems therefore that other toxins are necessary to induce the effects that endure for days.

The symptoms are so much like those of Asiatic cholera that the pathologic condition must be the same—irritation of the gastrointestinal branches of the vagus. This points to atropine as the remedy ,and it has proved very effective, being far more powerful than muscarine. Hence, we can scarcely imagine a death from muscarine if enough atropine is given, but we could not control atropine poisoning with muscarine.

The symptoms and the casual agencies are so strictly similar to those of snake venoms that we may employ the same treatment. Keep the patient at rest, and nourish with saline solutions hypodermically, intravenously, or by the rectum. The raw white of egg and milk should be given freely, as foods, and as antidotes to the hemolysin. The combination of glonoin, atropine and strychnine is indicated—glonoin to flood the cerebral centers with blood and arouse the vital forces; atropine to enhance and prolong this effect and antidote the vasorelaxant action of the muscarine; strychnine to increase the efficacy of each by arousing the vital reaction, and to stimulate all the vital functions. Of each the dose should be one-quarter of a milligram, repeated every minute or two until the face flushes, then as often as the symptoms may indicate. The stomach should be washed out to rid it of any unabsorved material remaining. The book doses of three remedies given should be promptly forgotten, and they should be dosed and repeated in strict accord

with the needs—the quantity and virulence of the toxins they andidote is always uncertain.

Since phallin, the hemolysin, is destroyed by the heat of cooking, and by the digestive enzymes as well, it is obvious that the danger from well-cooked mushrooms is principally due to muscarine and any unknown principles that may accompany it. It is difficult to see why any patient should die of eating cooked mushrooms if atropine be administered in sufficient doses to antidote the muscarine. However, it must be borne in mind that the effects of muscarine do not long endure, and as it is eliminated we have the remainder of atropine unantagonized, and may have to deal with a case of atropine poisoning.

To enable the lover of mushrooms to utilize the profusion of these fungi avaliable he should follow these rules:

1. Learn to recognize the amanitas, boleti and russulae, and avoid them.

2. Never eat any mushroom raw, withered, decomposed or wormy.

3. In case of poisoning evacuate the stomach and bowels, and give the combination of glonoin, atropine and strychnine, the dose suggested every minute until the face flushes. When the pupils dilate stop the atropine until they dilate again; then resume it if the symptoms persist.

4. After you have once experienced or witnessed a case of poisoning you will willingly subscribe to the fourth rule—never eat any mushroom unless you have identified it botanically and have good book authority for its wholesomeness.

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Dry cupping may be performed by burning alcohol in champagne glasses, skin; the vacuum thus formed has the skin; the vacum thus formed has the desired action.

MEDICATION BY THE RECTUM.

By J. A. Burnett, M. D., Hartshorne, Okla.

There are various remedies that when used by the rectum will give better results than when used in any other way. Oxygen is a remedy that has a wide range of therapeutic usefulness. It is used by inhalation, externally, subcutaneously and by the rectum.

In speaking of the modes of applying oxygen Dr. H. J. Burwash says:

"If one gets accustomed to administer ogygen for enemata he will never return to any other method as the results are vastly greater."

Again he says:

"The rectal method of administration is the most satisfactory one to get oxygen into the blood."

The noted physician Dr. J. H. Kellogg of Battle Creek Sanitarium was the first to use oxygen by the rectum Dr. Kellogg is well known even to the laymen all over the U. S. He knows a good thing when he uses it. There is an article "Oxygen Enemata" by Dr. J. H. Kellogg, Therapeutic Gazette, Sept. 15, 1887.

Collargolum is a remedy that has a wide range of therapeutic action. It can be used for general systemic effect by different modes of application, as internally, externally, hypodermically and by the rectum.

Dr. I. L. Van Zandt places much confidences in the use of callargolum in various conditions and has used it in different ways for several years. In speaking of the different modes of using it he says:

"When the bowels cannot be made to retain the collargolum I prefer this route always being sure the bowel is well cleansed before giving it."

Potter states that strychnine is more rapidly absorbed by the rectum than by the stomach. Dr. Holt in his work

on "Diseases of Infancy and Childhood," 4th ed., says:

"The administration of drugs per rectum is useful in certain cases where, on account of the unpleasant taste or vomiting the administration by mouth is difficult,—e. g. quinine and chloral. As a dilutant; gruel is preferable to water. If quinine is used, the bisulphate is the best preparation, but this must be well diluted. The temperature of enemata which are to be retained should be about 100° F. It is necessary in infancy to press the buttocks together for half an hour afterwards to prevent the expulsion of the injection."

The value of rectal medication and the technique of using different remedies by the rectum for general systemic effect deserves more attention. It should be borne in mind that remedies can be used by the rectum for different purposes. Dr. Hare in his "Therapeutics," 9th ed., says:

"When drugs are given by rectum we employ them for three purposes: First to influence the general system by their absorption; secondly, to act locally for any disease which may be present in this particular locality or in the colon; and finally to dislodge substances or parasites which is desired to bring away."

Again Dr. Hare says:

"When the stomach or bowel is empty absorption from either is rapid, but when they are full it is very slow. In this fact we find the reason for the popular idea that a glass of whiskey when a man is hungry makes him drunk, whereas twice the quantity after dinner does not do so.

Drugs in the stomach or bowel have no influence over the general system unless they are irritants. They only act when taken into the blood or lymphatics.

"Recent studies show that alcoholic solutions of drugs are more rapidly absorbed than are watery solutions or those made with glycerine or milk.

"When the stomach is depressed and its powers of absorptions impaired the addition of some stimulant, such as capsicum will often aid in the absorption of an important drug."

This leaves a good suggestion for those giving medicine by the rectum to remember that a little capsicum will occasionally be very essential for absorption or quick absorption when the drug is used to produce general systemic effect.

DEATHS FROM POISON.

Extract From Editorial Southern Medical Journal, Journal of Southern Medical Association, October, 1913.

Every few days the papers announce the accidental or suicidal death of some one from taking poison which was conveniently at hand. These deaths are rarely from narcotic poisoning. The law makes it troublesome to procure such in any quantity without attracting considerable attention. The purchase of strychnine or arsenious acid must also be explained. But crude carbolic acid "for use about the water-closets," or the still more deadly "antiseptic tablets" containing overwhelmingly fatal amounts of corrosive sublimate, can be found in a very large percentage of urban American homes. Carbolic acid is seldom taken by accident, but the list of heart-breaking tragedies from the bichloride tablets mistaken for acetanilad, or soda, or, in the case of children, for candy, grows longer every year. The whole country has been shocked into sympathy and admiration this summer by the death of the banker in Macon, Ga., who swallowed the poison by mistake and discovered the error too late for his life to be saved, but, like Socrates, bravely

watched and recorded his symptoms and sensations to the end. During the months of May and June several more deaths from the same cause occurred in the south. It is unfortunately true that our own profession is greatly responsible for this condition. When a doctor gives a woman a prescription for bichloride tablets to use for leucorrhea, it is like handing a loaded pistol to one who does not know how to use it. Thousands of such pistols are in such inexperienced hands and do no damage, but once in a while tragedy results.

So when a box of bichloride tablets is on the sewing table, or the mantlepiece, with probably boxes of like appearance scattered about, though in hundreds of cases no accidents may occur, yet some one somewhere will be certain to suffer. The pity of it is that there is not the shadow of necessity for any but druggists and physicians to touch either phenol or bichloride as disinfectants. Sulphate of iron, known as copperas, in lump or solution, is a cheaper and safer deodorizer than pnenol, and if one were to swallow some of it it would promptly be vomited.

For douches there are other substance equally efficient and non-poisonous. One of the best is chinosol. This is not said because it is advertised in this journal, but because it is true. One 7½ grain tablet in a pint or more of warm water destroys all odor and diminishes the ordinary leucorrheal discharge, and if the patient were to drink the solution no harm would result.

Had such tablets been relied upon in that bereaved Georgia home Mr. Walker would now be alive and well.

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The bile salts are the best cholagogues. First clean out the bowel with calomel, and keep clean with laxative salines.

ELECTRO THERAPEUTICS.

By H. J. Bennett, M. D., Lima, Ohio.

Whenever a high frequency coil is used for X-ray work, a special tube with a valve attachment must be used for best results.

If the coil is of the single pole variety—if you are in doubt test in the dark as follows: Pull your discharge rods wide open; if you see the discharge originate at one terminal, and little, if any, coming from the other, you have a single pole coil—this active terminal should be connected to the large cathode, and the small cathode connected to the opposite one. For best results do not connect the target terminal of the tube.

The coil should be so adjusted, if there is a frequency changer switch on it, that the lowest frequency will be used in the tube. It is well to start with the rheostat, or controlling switch off, or nearly so, turning on to the desired point, opening the spark gap as desired. This is especially true when a new and untried tube is used. In starting a new tube for the first time, have the swivel arm raised about four or five inches from the cathode cap.

If your wires pit a blue flame, or if your tube is streaked with yellow, and does not light up well, your vacuum is high. To lower, move the swivel arm of the tube down to, say three inches, from the cathode terminal. Turn on the current, and sparks will pass from the cathode cap to the swivel arm, into the regulator, lowering the vacuum. The tube should light up to a full green and give a good hemisphere, for best results. Do not give long exposures. If you do, the secondary rays generated will fog your plate. For deep subjects, and in place of long exposures, use an intensifying screen; much better results will be obtained.

If your tube begins to show blue, in

other words runs down in vacuum, stop your exposure. If you do not, you will lower the vacuum too much, and get hazy pictures. The vacuum will run up if the tube is allowed to stand over night.

With careful treatment, tubes will last for a long time.

Do not think that because you have a small or a portable coil you do not need to take precautions. Protection is necessary for you and your patients on account of the secondary rays generated by the high frequency currents. Use a tube shield at all times. Your diaphragms will cut off the secondary rays and improve your pictures.

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AMERICAN PROCTOLOGIC SOCIETY.

Sixteenth Annual Meeting, held at Atlantic City, N. J., June 22 and 23, 1914. President, Jos. M. Mathews, Louisville, Ky. The Vice-President, Jas. A. MacMillan, M. D., Detroit, Mich., in the chair. Officers elected for he ensuing year: President, Louis J. Krouse, M. D., Cincinnati, Ohio. Vice-President, Collier F. Martin, M. D., Philadelphia, Pa. Secretary-Treasurer, Alfred J. Zobel, M. D., San Francisco, Cal.

Executive Council: Jas. A. MacMillan, M. D., Detroit, Mich., Chairman. Louis J. Krouse, M. D., Cincinnati Ohio. Lewis H. Adler, Jr., M. D., Philadelphia, Pa. Alfred J. Zobel, M. D., San Francisco, Cal.

The place of meeting for 1915 will be San Francisco Cal. Exast date and headquarters will be announced later.

The following were elected Associate Fellows of the Society: Dr. Wm. H. Axtell, Exchange Block, Bellingham, Wash.; Dr. Rolla Camden, 915 Avenue of the Presidents, Washington, D. C., Dr. Descum C. McKenney, 1250 Main St., Buffalo, N. Y.

The following is an abstract of the principal papers read:

Extracts from the Report of Proctologic Literature from March 1913 to March 1914. By Samuel T. Earle, M. D., of Baltimore, M. D.

In Samuel T. Earle's review of Proctologic Literature from March 1913 to March 1914, he quotes from the following authors giving the salient points from each of their papers:

Percival P. Cole, M. B., Ch. B., F. R. C. S. England (British Medical Journal, Vol. I, 1913, uage 31) "The Intramural Spread of Rectal Carcinoma."

Robert A. Bachman, M. D., Newport, R. I., Surgeon U. S. Navy. (Journal of American Medical Association, Vol. L., 1913, page 1154) "A New Method for Hemorrhoids."

Jerome M. Lynch, M. D., New York City. (The American Journal of Obstetrics and Diseases of Children, February, 1914, page 322) "Blocking the Sympathetic by a Method other than Spinal Anesthesia to prevent shock in the combined operation for Cancer of the Rectum, or Recto-Sigmoidal Juncture, with some Improvements and Modifications of Technic."

Charles R. Robins, M. D., Richmond, Va. (The Old Dominion Journal of Medicine and Surgery, May, 1913, Vol. XVI., page 236) "Sliding the Rectum in the Cure of Various Defects."

Granville S. Haines, M. D., Louisville, Ky., (Kentucky Medical Journal Vol. XI, June 65, 1913, page 516) "Anal Pruritus Treated by Operation; Report of Case."

Frederick H. Williams, M. D., Boston, Mass. (New York Medical Journal Vol. VCII., 1913, page 875) "Electricity in Rectal Diseases. A Neglected Resource in their Treatment."

T. F. Riggs, M. D., Pierre, S. D. (The St. Paul Medical Journal, Vol. XV., page 461) "Fistula-in-Ano. Its Rational and Successful Treatment."

P. Lockhart Mummery, F. R. C. S.

England. (The Lancet Vol. II, 1913, page 72) "Operation and After-Treatment of Fistula-in-Ano."

Harvey B. Stone, M. D., Baltimore, Md. (Annals of Surgery, Vol. LVIII, 1913, page 647) "Immediate and Late Results of the Whitehead Operation for Hemorrhoids."

Daniel Fisk Jones, M. D., Boston, Mass., (Boston Medical and Surgical Journal, Vol. CLXIX, page 707) "Carcinoma of the Rectum."

James W. Heslop, M. B., M. R. C. S., Newcastle on Tyne, England (The British Medical Journal, February 28, 1914, page 476) "Dissemination in Carcinoma of the Rectum."

Coccygodynta: A New Method of Treatment by Injections of Alcohol. By Frank C. Yoemans, A. B., M. D., of New York City, N. Y.

The diagnosis is established by a thorough examination, both general and local. Local examination is made by inserting the index finger into the rectum and palpating the coccyx between it and the thumb outside. The soft parts intervening between the coccyx and anus are now compressed and the point of maximum tenderness is thus located, usually just beyond the tip of the coccyx. Proctoscopy rules out rectitis.

The prognosis hitherto has been better in the traumatic cases than in those of frank neuralgia or neuritis. The writer confidently predicts that the treatment proposed will render the latter equally amenable to treatment.

The writer proposes a change based on the suggestion of Schlosser in 1907, of injecting 70 to 80 per cent alcohol in sensory nerves, thereby causing their degeneration as practiced with marked success in trifacial neuralgia.

The technique is simple and can be carried out in the office under strict aseptic precautions. The patient with empty bowel is placed on a table in the Sim's position and the skin about the coccyx painted with tincture of iodine. A 2 c. c. Luer or similar syringe is filled with 80 per cent alcohol and armed with a two inch. The right index finger is now inserted into the rectum and the point of maximum tenderness is determined by counter pressure with the thumb outside. Maintaining the finger in the rectum to guard against puncture and as a guide, the needle is introduced through the midline directly to the painful spot, and 10 to 20 minims of solution are injected slowly.

The needle is withdrawn and its puncture sealed with collodion. The pain from the injection lasts a few minutes and is followed by a dull ache which may last a day or two. From three to five injections are usually required at intervals of about one week.

The writer reports seven cases, all women, treated from two months to four years ago. They required three, four or five injections each at intervals of about one week. Relief was prompt and complete and all the patients have remained well.

The Technique of the Perineal Operation for Cancer of the Rectum. By J. A. MacMillan, M. D., of Detroit, Mich.

In every case a preliminary colostomy must be considered imperative. The colostomy provides the only means of discovering whether a radical operation is justifiable or not, supplies physiologic rest for the affected part, and later provides for aseptic conditions in the surgical field.

After thorough divulsion a circular incision is made at the muco-cutaneous line and carried up to the lower surface of the Levator Ani. Most of the dissection can be done by the fingers. It is not necessary to destroy the external sphincter. This step of the operations exposes a circular area of the Levator Ani about an inch and one-half wide. Before proceeding

further the hemorrhage should be controlled and the location of the affected glands determined.

The next step of the operation includes the division of the Levator Ani and the removal of lymphatic glands.

The peritoneum may be entered anteriorly and separated laterally which will leave the mesosigmoid as the only attachment of the bowel. This should be divided as far from its colonic attachment as possible in order to secure the retention of a good vascular supply for the proximal end of the bowel after the excision.

When the gut can be drawn down sufficently to permit the excision of the affected portion and the attachment of the lower edge of the mucous membrane to the skin, excision is done and the sutures placed. Free drainage is necessary.

The colostomy is not closed up until the patient has been up and about for several weeks.

Myasthenia Gastro-Intestinals. By V. Lee Fitzgerald, M. D., of Providence, R. I.

By the term "myasthenia gastro-intestinals" is understood a weakness of the muscles of the abdomen, stomach, intestines, and their supporting ligaments, with a consequent downward displacement of any or all of the viscera.

Many patients suffering from myasthenia in its different forms are in danger of having suspensory or other operations performed upon them, whereas the intestinal stasis can be entirely removed by medical measures and the baneful effects of the underlying ptosis entirely removed.

The general aim in the treatment of the stasis, and the restoration of the prolapsed viscera to as near their normal position as possible.

The success in the treatment of these patients depends not only upon the relief of stasis, but also upon th patient's active and persistent co-operation.

For the past two years the writer has been treating cases of myasthenia as follows: The patient is given a thorough examination, including that of the gastric contents, urine and faces. In case of myasthenia of the stomach with dilatation and prolapse the patient is put to bed and fed through a duodenal tube six or seven times a day, depending upon the amount of food needed to nourish the patient. This gives the stomach a complete rest, and it comes up into normal, or nearly normal, position in from ten days to two weeks.

Further Observations on Pruritus Ani: Its Probable Etiological Factor; Results of Treatment. (A fourth report, based on results of original research.) By Dwight H. Murray, M. D., Syracuse, New York.

In this report on the fourth year's work of original research on pruritus ani, the author finds there is not much more to give to the profession beyond the confirmation of the work of previous years. He has yet no reason to doubt his claims for the infection theory of pruritus ani.

Twenty new cases have been examined during the past year. In all but two of these streptococcus fecalis has been demonstrated.

It has been found that occasionally the bacterial growth seems to be so lacking in strength that it is difficult to obtain an autogenous vaccine. It is not known why this is so unless it is owing to the very low grade inflammation produced by germs not so active as those found in other infections.

During this year two cases were treated by other physicians who tried to follow his technique, but in neither case was improvement manifest notwithstanding that streptococci were found present by the author's bacteriologist and although the same quan-

tity of vacines were used. With the consent of their physician the author took up the treatment. Improvement was marked. The only point of difference in the technique that he could discover was that the others injected the vaccine deep into the muscle instead of directly into the skin or immediately beneath it.

During the past year the author has had additional proof that the itching does not extent appreciably above the white line of Hilton. He has also had continued confirmation of his previous statement that the moisture found upon the parts is not a discharge from the rectum.

This past year's work again shows that other rectal diseases are not present regularly with pruritus ani, and the belief that they are coincidental instead of etiological.

No unfavorable sequelae arose from the vaccine injections. There is now no hesitation in running the dose up to two billion or more dead bacteria. One injection resulted in formation of a jelly-like material in the tissue but this was absorbed. Some time ago a similar swelling was opened and found to be sterile, and no trouble has resulted.

A Report of Cases of Pruritus Ani Treated with Carnotite. By Samuel T. Earle, M. D., of Baltimore, Md.

Carnotite, a radio-active mineral, was used in the treatment of eight cases of Pruritus ani and was found to be a very satisfactory palliative remedy.

Treatment of Amebic Dysentery by Emetine Hydrochloride. By Alfred J. Zobel, M. D., of San Francisco, Cal.

The writer gives a brief culling from the literature on the emetine treatment of amebic dysentery, and also a few words relative to the drug itself.

He states that in emetine hydrochloride we have a reliable, non-toxic drug possessing a definite specific action; which may be administered hypodermically, and yet which will permit of a sufficient dose being given without causing any depression, nausea, vomiting, or local reaction.

He reports two interesting cases in which the disease was present in one individual for ten, and in the other for fourteen years. Under the influence of emetine, within two or three days amebae, blood, mucous, froth, and foul odor disappeared from the dejections and their number greatly decreased; the racking tenesmus, bearing down feeling in the rectum, the colic, and the abdominal tension, discomfort, and gurgling absolutely ceased.

Proctoscopic examinations revealed the favorable influence of the drug upon the amebic ulcerations. No amebecidal irrigations were employed.

He further reports other cases seen by him in consultation which demonstrate most forcibly the necessity for a proctoscopic examination of the bowel and a microscopic examination of the feces in every instance where a diarrhea lasts longer than a week, even though the patient has never lived in nor visited a locality where the disease is known to exist.

He advises that emetine should be given for at least three or four months at intervals before the patient should be considered free from the possibility of a recurrence, even though he is climatically cured and the amebae cannot be longer found in the stools.

(To be Continued)

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For the internal administration of radium emanations, drinking water is found to produce more lasting effects than breathing the emanations.

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If you "hitch your wagon to a star," don't worry about a soft place to land. Every bird must trust to his own wings; if he can't do that he should not fly.

The Wisconsin Medical Recorder

F. W. VAN KIRK, M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 AUGUST, 1914 No 8

For the last few months the physicians throughout the country have noted that the price of certain drugs has been gradually soaring—some of this increase in price of the commonly used remedies has not seemed justifiable. Complaints have been made but we still continued to see the price creep up. At the present writing we can easily see that the increase in price of certain drugs and chemicals is perfectly justifiable because with the advent of the European war the importing of drugs and chemicals is an impossibility and we must depend upon the supply at hand of European products until that is exhausted and then we must depend on our home product. A good editorial appeared in the Journal of the American Medical Association recently that is well worth reading, the idea being advanced that while certain of these drugs can be manufactured in this country and while many of them are, and put out under the chemical name or some modification of this name, they should be some way in which we could compel the European manufacturers to manufacture these imported remedies in this country. Unless there is some revision in the scale of prices adopted by the general practitioner in the smaller places, this enormous increase in the price of drugs will be a heavy burden to bear. There is hardly a community in the country where the physicians are charging more for their calls and office work than they did ten or fifteen years ago, yet stop and consider a moment and you will see that while practically every other expense has almost doubled the medical fraternity are plugging along charging the same old prices when their expenses of living and caring for their practice, has doubled. This great increase in the price of supplies has simply brought this matter nearer home to us, and I am looking for a reaction this fall when the physicians of the different county societies throughout the country get together again at their monthly meetings.

♣ ♣ ♣

When an eight-pound boy arrived at his home, 100 Garfield avenue, yesterday, Dr. Flavel B. Tiffany announced that Dr. Wiley would have to give up the blue ribbon he has been claiming in the prize baby contest. Dr. Tiffany, who is 68 years old, was married in September 12, 1912, after which he and his bride made a trip around the world. Thirty-four years ago on July 10, a boy was born to the first Mrs. Tiffany, but it died in infancy. The newcomer is to be known as Flavel B. Tiffany III.

ABSTRACTS

ABDERHALDEN'S REACTION.

H. Schwartz, St. Louis (Journal A. M. A., Aug. 1, 1914), points out certain uncertainties of the Abderhalden reaction. In the women's clinic pregnancy cases and cancer cases are always to be found; the material for preparing albumin or peptone can be obtained fresh and special precautions in obtaining and handling serum can be readily observed. The women's clinic must therefore be the training camp for research work in this field, but it is a waste of energy and material to attempt investigating other conditions and work with other organs and tissues before the investigator has learned the fundamentals of this work and tested the efficiency of his technic on the touchstone of the cross examination of pregnancy and cancer. The serodiagnosis of pregnancy even in expert hands is subject to error on account of unreliable dialyzing thimbles, but the optic method eliminates this source of error. A peptone obtainable in the market is not always reliable. It must be remembered also that a positive reaction means that the patient in question harbors placental elements, usually it means that she is pregnant. Placental elements, however, may remain in the uterus or even in other parts of the body for long periods after delivery and this is especially the case in hydatiform mole. There are also difficulties in the diagnosis of cancer. The serum of another form of cancer may give a negative reaction when the cancer used in the test is of different histologic structure. We also have difficulty in securing cancer material free from blood or infection, and sometimes it is not possible to isolate th e cancer material in the affected organ. So far it has not been possible to prepare the desirable quantity and varieties of malignant albumin and out of the question with cancer peptones. Eventually this may be posible. The serodiagnosis of cancer will be of value where material for the microscope is unobtainable before serious operations, and he gives an instance where this is shown. It is of still greater value for controlling cases after radical operations and for watching for return of the disease, also for observing the effects of treatment by the Roentgen rays and otherwise. The serodiagnosis of pregnancy and cancer by these biologic reactions is already of considerable practical value but the methods are not suitable for commercial laboratories and can be depended on only when done in research laboratories connected wtih a hospital service.

LEAD POISONING.

E. M. Williams, Sioux City, Iowa, Journal A. M. A., Aug. 1, 1914, reports a case of lead poisoning with paralysis of the extra-ocular muscles. When examined he had residual signs of the disease, a partial double wrist drop and bilateral ptosis, more complete on one side, on which side also the internal rectus muscle was partially paralyzed, sufficiently to interfere with accomodation. There was also absence of basophilic degeneration and absence of lead line on his gums. The patient had been obliged to give up his business as a painter several years previously on account of illness. The partial paralysis of the external rectus was sufficient to cause a double vision when the patient worked in a poor light. Williams has had several patients with slight or partial ocular paralysis in which double vision occurred in a dim light. He gives the history of a case to emphasize the occasional insidious onset of plumbism, particularly when the occupation and life of the patient is of such a character. In this case also there was double lead line on the gums.

THE DOCTOR'S LIBRARY

INTERNATIONAL CLINICS, Vol. II. Twenty-Fourth Series. 1914. Philadelphia. J. B. Lippincott Co. Cloth. $2.00.

The International Clinics continue, not only to maintain the high standard of the past, but have improved in contents. There is no better way in which to keep informed on the latest advancement that is being made in medical science than to read these clinics. This volume contains some very important papers. Ballantyne of Edinburgh contributes a very complete article on "Health Before Birth: Antenatal Hygeine and Eugenics," Ball of St. Paul on "The Treatment of Syphilis of the Nervous System," which like any of the leading articles on Surgery are well worth the price of the book to any physician.

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MEDICAL MEN AND THE LAW. A Modern Treatise on the Legal Rights, Duties and Liabilities of Physicians and Surgeons. By Hugh Emmett Culbertson, of the Ohio and New York Bars, Etc. 325 pages. Philadelphia. Lea & Febiger. 1914. Cloth.

We do not remember when we ever reviewed a book that pleased us so well as this work by Judge Culbertson. It covers the legal rights and responsibilities of medical men very thoroughly. How often have you wished to know the law regarding some particular point that comes up in your practice? It covers the rights to practice, malpractice, criminal liability, witnesses, libel, and everything that is liable to come up in one's professional career. It gives full reference notes to cases and legal texts.

We say advisedly that no physician can afford to be without this book. It defines your legal duties to your patients and will be of help in keeping you out of trouble as well as furnishing references to cases for defense should you have a malpractice or other case to fight in the courts.

This book is made up in the high quality of the publications that come from the house of Lea & Febiger, and is the most useful book of the year.

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PSYCHOLOGY AND MENTAL DISEASE by C. B. Burr, M. D. Fourth Edition Revised and Enlarged. Illustrated. Philadelphia. F. A. Davis Co., 1914. Cloth. $1.50.

This fourth edition of Burr's Handbook has been materially enlarged. The section on "Management of Cases of Insanity from a Medical Standpoint has been revised and amplified to a considerable extent. A new section on Symbolism in Sanity and Insanity" has been added.

It will prove a very useful handbook on the subject for the use of the student and general practitoner as well as for nurses.

Dr. Burr has had a very extensive experience in institutional care of mental and nervous cases, and is an authority on this class of practice. The book is based upon his practical experience and will well repay any physician who will give it careful study. The book contains 235 pages and is well bound in cloth.

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THE INTRAVERTEBRAL FORAMEN. An Atlas and Histological Description of an Intervertebral Foramen and its Adjacent Parts. By Harold Swanberg, with an introduction by Prof. Harris E. Santee. Illustrated

by sixteen original full page plates. Chicago. Chicago Scientific Publishing Co., S. W. Cor. Grace and Osgood Sts. Cloth. $1.50. 1914.

This book is something new and out of the ordinary in medical and scientifi literature. It is entirely original None of the text or illustrations have been borrowed from other sources or ever published before. There are sixten full page plates all of which are printed on engraver's proof paper.

In the present age when a number of cults are contending that disease is caused by impingment of the spinal nerves by pressure it is worth while to advise ourselves of the probability of such being true. This book gives the only exhaustive consideration of the subject that has appeared, and while it does not argue the case one way or the other, it gives the facts as they exist and leaves the reader to draw his own conclusions.

Dr. Swanberg is entitled to a great deal of credit for the careful attention to details shown in this monograph. He has produced a work that is destined to become a classic, and one that no man who desires to be well informed can afford to be without. A careful study of this work will enable you to meet the arguments of the chiropractor and others of his kind in a scientific way.

The book is bound in silk cloth. Contains 100 pages of text and sixteen oringal full page illustrations. The price is very low for a work of such high quality, only $1.50.

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Contributions to Practical Medicine. By Sir James Sawyer, M. D. (London). Fifth Ed. Revised and Enlarged. pp.410. Birmingham, Eng. Cornish Bros. 1912. Cloth, $1.25.

This book contains the author's work on medical subjects that have appeared as published letters, especially the Lumleian Lectures. The chapters on Insomnia, Habitual Constipation, and Maladies of the Heart are alone worth the small cost of the volume. This book may be said to reflect the highest standard of British practice. It will prove especially valuable to American physicians for the clear, clean-cut way in which it goes to the very heart of the subject. We advise our readers to add Dr. Sawyer's work to their libraries.

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SUPPRESSING THE IRREGULAR.

Many citizens are ready to complain about irregular practitioners, but expect the other fellow to take up the burden of curbing them. Some time ago a committee w as appointed to take charge of the matter, but no complaints have been entered before this committee. We feel that it is asking too much to expect three men to give up their time and money to go about seeking whom they may prosecute. A man may be violating the medical practice act daily, but it no small task to prove a case. In the matter of the new cult that has come forth in the past two years, it requires incontrovertible evidence to make a case. We must have two or more witnesses on whom we can rely absolutely—dissatisfied patrons preferably. All these matters can be cleaned up but it requires work on the part of the profession and not simply apopinting a committee.—The Bulletin, Lake County Medical Society (Ind.).

Senile pruritus? Try clearing the bowel with sodium phosphate and small doses of pilocarpine. A good application is:

Menthol	½ dr.
Acid salicylic	1½ dr.
Lanolin	½ oz.
Olive oil	add oz. 4

Wisconsin Medical Recorder

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VOL. XVII SEPTEMBER, 1914 NO. 9

ETHICS of CONSULTATION

FRANK P. DAVIS, M. D.
Enid, Okla.

To the eminent practitioner the question of just when to ask for counsel is one of importance. Many times he would be glad to avail himself of the knowledge and moral support of a brother physician could he be assured that the man he called would treat him ethically and fairly. Almost every disease and organ of the body is specialized in these days of modern medical progress. Competition is so keen and unprofessional conduct so common that one must observe great care in selecting counsel, lest he meet with injustice and be made to appear the "lesser light" in the presence of some egotistical and unscrupulous member of the profession.

WHEN TO CALL COUNSEL.

One should, however, not hesitate to ask for counsel when there is grave doubt as to the correctness of the diagnosis; where there is a question of the advisability of an operation; where grave complications endanger life, and where confidence in the attending physician is wavering.

When the patient or his friends appear to be losing confidence a request for counsel should be anticipated, as the attendant will then have a better opportunity to select the counsel that he prefers.

When a desire for counsel is expressed by either patient or his friends it should not be opposed, but the attendent should try to secure counsel that will be honorable and that will treat him fairly.

CONDUCT DURING THE CONSULTATION.

The conduct of the physicians during the consultation is a matter of much importance, as upon the dignified manner in which it is conducted depends to a great extent the impression that will be made upon the patient and his friends.

When counsel has been decided upon the time for the meeting should be arranged to meet the convenience of the consultant so far as possible. Each should be present promptly at the hour set, as neither has a right to waste the valuable time of the other in needless waiting.

It is important that justice be done to all parties concerned. There are certain things that each may and may not do, and a proper form in which the consultation may proceed.

Unless it is convenient for the attending physician and the consultant to visit the patient together, the attending physician should be present when the consultant arrives.

Counsel will not talk of the case with the patient or family, nor make an examination or express an opinion regarding the case should he arrive before the attending physician. And then only with the permission and in the presence of the latter.

Counsel should acquire all information pertaining to the history of the

case and the treatment from the attending physician and from no other person. It is the duty of the attendant to give counsel such information as he may possess, after which he should invite him to examine the patient.

In entering the room occupied by the patient the attending physician enters first, and after the examination counsel retires first. The rule is that the attending physician is the first to enter and the last to leave the sick room.

Counsel should not ask questions of the patient or friends on the history of the case while making the examination, as this information should have been obtained from the attending physician before entering the room. After counsel has completed his examination he should announce that he is through and be ready to retire. The subsequent conversation between the physicians should be in private.

After the consultation is concluded, the attending physician should acquaint the family of the result, unless there should be reasons that would cause him to request counsel to impart this information. The consultation is now closed so far as the relationship of the counsel to the case is concerned. He is not at liberty to again enter the sick room, or to express himself in a confidential manner to any member of the family or other person at any time, or any phase of the case, unless invited to do so by the attending physician and then only in his immediate presence.

THINGS COUNSEL MAY NOT DO.

No physician called in counsel has any right to do or say anything, at any time, that could in any manner detract from the prestige of the attending physician or that will lower the latter in the estimation of his patients or friends.

At no future time is counsel at liberty to speak of the case in terms other than he did at the time of the consultation.

No physician can be considered an honorable man who will use any information gained in consultation to injure the physician who was in charge of the case.

Counsel has no moral right, when called to meet at a certain hour, to rush in an hour late and put up the bluff that he has been so busy attending a very serious case and could not get away, and then proceed to orate for the benefit of the patient and friends on the magnitude of his practice and the number of leading citizens who were waiting in his reception room when he rushed away. The interested parties to this case—the patient, his friends, and the attending physician—are not greatly interested in the extent of his practice, or the number of surgical operations he has performed in the past month. Even the make of his automobile or the number of horses he has driven to death will not be of great importance to the patient.

It is not just an act of "brotherly love" for counsel to remark to the friends of the patient that "he ought to be in the hospital, where we could operate at once if his condition became grave." Especially is this true if counsel happens to control a hospital.

Counsel may not suggest a radical change in treatment or introduce another method of treatment in the presence of the friends of the patient. Should he deem a change advisable he should explain his opinion to the attending physician and permit him to make the change gradually so as not to arouse the suspicions of the patient or his friends.

Under no condition should counsel consent to take charge of the case, but should such a course be insisted upon by the friends of the patient, he should explain that it will be better to continue with the attending physician, but

that he will be pleased to assist during the time that his services may be required. It is better for the patient that his physician continue in charge of the case as he is familiar with the history and past treatment, when if a change in physicians is made it becomes necessary for the new physician to learn all the peculiarities of the patient in addition to his present condition and case history. One of the greatest mistakes of the medical profession is this replacing of one man by another, instead of following the rule common to the legal profession of adding more to the counsel.

In case of disagreement during the consultation it is proper to advise the family that you are unable to agree, and ask that a third member be called. In case this is not agreeable to the family it will be necessary for the consultant to retire.

A FREQUENT MISTAKE.

A frequent mistake of counsel is in making a too favorable prognosis. If the prognosis is favorable and the patient dies his friends will always believe the attending physician was not equal to the case. This is unfair to the physician in charge of the case. If the prognosis is grave and the patient recovers the attending physician will receive credit for bringing him through. Counsel will also receive due credit for his part in the fortunate outcome of a dangerous case.

When I am called in consultation I always try and confirm the diagnosis of the attending physician so far as any statement I may be called upon to make to the family. At the same time I give the physician any suggestions or information I may possess that will aid him. In this way I always protect a brother physician and at the same time give the patient the benefit of any ability I may have. The attendant can then arrange to carry out the suggestions made without exciting the suspicions of his patient or his friends.

By following the Golden Rule I have had the satisfaction of knowing that the relationship existing between the attending physician and his patient have been made stronger, or at least have not suffered from my being called into the case.

TRUE ELIXER OF LIFE

J. W. LOCKHART, M. D.
St. John, Wash.

In the Medical Recorder for December, 1913, appears a rather interesting article under the caption of "The Elixir of Life."

The article is readable and, in a sense, thought provoking. It invites criticism but does not contain a sufficient statement of facts to provoke controversy.

That there is a very real elixir of life we can readily admit, but not of the visionary Paraclesian kind. That there is a true philosophers stone we doubt not but not of the kind so long sought by the visionary alchemist who has been on the trail of a will-o-the-wisp, lo these many centuries. The alchemist has searched in vain while the true phliosophers stone has been rolling down the centuries unobserved by them to bless and enlighten mankind.

Sometime, somewhere, somehow, when the great efficient First Cause created man from the dust of the earth and announced the inexorable decree, "To dust thou art and to dust thou shalt return," He instilled into the veins of man an elixir of life pregnant with possibilities far beyond the wildest dreams of the most visionary alchemist. In our natural love for the subtile and mysterious, the recondite and obscure, we are apt to give wings to the fancy or to the imagination, and

spurn the most obvious facts that lie in rich profusion around our daily path.

This wonderful elixir of life, acting in conjunction with the philosophers stone of perfect reason, could not fail to produce a perfect man or race of men, perfect physically, spiritually, morally and mentally. But man himself sought to become wiser than his Creator, and dared to violate the laws of the great First Chemist of the universe and all that therein is. He dared to tamper with that perfect elixir of life prepared by the efficient First Cause of all things in that most wonderfully equipped laboratory of his own physical existence. Primeval man, as men do now dared to mix forbidden fruit with his own elixir of life, and contaminate the philosopher's stone with forbidden and most pernicious poisons—and mankind has followed his monstrous example from that day to this.

When man refused to tamper with this sacred elixir of life by introducing into it substances which viciate and poison it, he lives a pure and clean life; when righeousness is his shiboleth and he learns to do good and eschew evil, when he keeps the blood serum free from contamination, keeps it what the great universal Chemist intended it should be, he will become germ proof and disease proof. This is no idle dream; it is well within the possibilities, and is very close to the paramount duty of man.

When men fully realize that the universal Chemist placed the fountain of the elixir of life in their own bodies and that to violate the immutable laws of vital chemistry through which that fountain is supplied is to viciate and poison the life stream; to weaken, if not destroy the several vital organs of the body; to inhibit their normal functions, to invite disease and trifle with death, then and not till then will man become the perfect creature that God and nature ordained that he should be.

Then will the functions of the physician as he now is be transformed; he will become the leader and teacher and the exemplar paramount of humanity which he ought to be. Instead of chasing senseless fads promulgating senseless theories, widely reveling for the enactment of more tyrannical and despotic legal enactments for the questionable purpose of making all other men live as seemeth wise unto him and the medical profession, attempting to restore the viciated elixir of life to its normal condition by questionable methods and making his life an evil example, especially for thoughtless youth, he will instruct men in the ways of righteous living—teach them that submerged in the pure and unadulterated elixir of life the philosopher's stone of pure reason will shine forth in all its beauty as a pearl of great price having lost its brilliancy is restored by immersion in the ocean's brine

Then will the restored and purified elixir of life in conjunction with the plilosopher's stone become an elixir and cornerstone of life everlasting, "shining more and more unto that perfect day."

No clouded vision daunts his soul,
As on the strenuous ages roll;
A life in tune with God and law
May ne'er the veil of myst'ry draw,
But drinking in the light of earth
Rejoice in nature's newer birth,
Until transformed from low to high,
He loves to live—may love to die
In noble strife, for righteous cause,
Proclaimed by God and nature's laws.

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Hypodermics of urotropin (6 to 12 grains or more) twice daily are recommended by Chauffard in the treatment of typhoid fever. It is said to be valuable also, given in this way, in the treatment of septicemia.

A CURE, A LA ASTRAL

W. STUART LEECH, M. D.
Roseau, Minn.

It was during the early days of January, 1914, that I had been attending a case of abdominal trouble in a fourteen year old much emaciated boy. He was dark haired, brown eyes, large bones, and slender physique, with a good amount of intelligence. Four years prior to his present attack he had suffered from a severe attack of appendicitis from which he had apparently recovered. Of late he had been more or less indiscreet in the choice and the amount of his food and on the day before the present attack he had in lifting hay suffered some violence by a slip of the foot. After a day or two of suffering I was sent for and found all the classical symptoms of a pus forming appendix present. Food was discontinued for eight or ten days, the proverbial ice-bag was used judiciously and an occasional enemata was employed. Temperature ran along from 99 to 102½ and about the seventh or eighth day of his sickness the symptoms became so alarming that I induced the family to permit me to have Dr. North as a consultant next morning. Dr. Unus of the same town had attended the case four years previously and had at that time insisted upon an operation. Personally, I had performed quite a few abdominal operations but it was generally done as a last resort, and now it looked as though there would be another case where I would have to resort to the same procedure. This modus operandi, especially in the midst of an attack, was not to my liking. Being a student of the neophyte class of the Western Wisdom School of Natural Science I endeavored to use unusual means in conjunction with the physical means to bring about the recovery of this case as I do in others. The unusual is the application of natural laws of one or more of the higher planes of existence.

As a word of explantion I will say that Natural Science informs us of a number of concentric worlds or planes as real if not more real than the physical all interpenetrating each other, occupying the same space as it were, forming no less than seven dimensions of space each under a vibratory condiion consistent with its harmonious surroundings. Physical science begrudgingly recognizes and hints at the higher vibrations of the invisible ether. Medical science does its best to ignore these higher planes yet she persistently and empirically uses daily the powerful alkaloids. There are a number of wavelengths between the vibration that causes sound and that which causes light although unknown to us but producing things no less powerful, it is so into the trillion and quintillion of vibrations. The most of these vibrations ignore our dense physical bodies, walking right through them as though they never existed. These vibrations are harmonized into divisions and nearest to our physicial is the Desire World or Astral Plane, and we might conceive of it as an extensions of the physical plane, being more refined is naturally subject to higher and more refined laws. However, in order to be able to function on this plane or in the desire world an organization of like substance is required. Every man has the frame work for this subtance concealed in his phyical makeup, and there is a certain word or formulae which if wisely and persistently used will develope this organization. Anatomically speaking it causes a physiological link or connection to be made between the pituitary and pineal bodies which respectfully govern and harmonizes the desire with the physical body. When this chasm is abridged the higher vibratory desire body can at will withdraw from the physical body and travel any distance on the Desire Plane. If you wish to follow no fur-

ther, you the reader, can consider the phenomenon a going off into dreamland, but remember a fact is a stupendous thing and remains the same whether we like it or not.

The evening before the physical consultation was to take place with Dr. North; Dr. Unus, Dr. North and myself went off into the Desire World (Dreamland) and met together at the bedside of the sick boy without his knowledge or that of his parents who were eagerly watching him. Naturally we were invisible to their physical perceptions.

During this consultation on the Desire Plane Dr. Unus steps forward and almost violently seizes a portion of the afflicted organ and throws it away. His Desire hand passed right through the boy's physical body. I then stepped up to the bedside, using both hands, lifted the elbow end of the colon and gently stroked the undesirable irritable substance away. Dr. North acted as a spectator, and apparently gave his consent. Let it be known that physical substance is no bar to the astral hand, but it is nothing unusual for a patient to waken from his slumbers as the Desire or astral hand is being withdrawn.

The morning after this consultation in the Desire World I called as I had promised at Dr. North's office and had him ride with me to the physical consultation which had been agreed upon with the family the previous day. To the great astonishment of the family and to my own gratification the boy was free from pain, tenderness, fever, and muscular rigidity, and from the family's report commenced his rapid recovery during the night. It is now six months and the boy is enjoying the best of health.

You doubt it? Had I not been a participant, had I not seen with my own eyes and felt with my own fingers I too would have doubted.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 218 September Recorder)

ENDOCARDITIS.

Always differentiate form and establish the cause as a direction toward proper treatment. If there is fever and cardiac excitability give Aconitine, Bryonin and Veratrine or Aconitine, Digitalin and Veratrine, with small doses of Hyoscyamine, every half hour or so to effect. Hyoscyamine may be replaced by either Morphine or Codeine. A modification of the Hyoscine, Morphine and Cactoid combination. alternated with Aconitine and Bryonin. to sedate. The bowels should be cleared out with blue mass and soda, followed by a saline, and then he sulphocarbolates to full effect. If accompanying rheumaism, the salicylates Colchicine, or one of the following internally: Salicylic acid gr. 1; iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s.: or, Salicylic acid gr. 1; iodized Lime gr. ⅓; Stillingoid gr. 1-6; Colchicine gr. 1-250. Bryonin gr. 1-128; Macrotoid gr. 1-12, Aromatics q. s.. or, Aconitine hydrobromide gr. 1-800; Colchicine gr. 1-128; Strychnine sulphate gr. 1-128; Macrotoid gr. 1-6; or, Macrotoid gr. 1-30; Bryonin gr. 1-60; Colchicine gr. 1-1000; Rhusoid (from Rhus Tox) gr. 1-250; Strychnine arsenate gr. 1-250. As diuretics, Asparagin or Barasmoid. As alteratives arsenous Iodide or iodized Lime; to support the heart, Digipoten; to overcome acidity, Calcium Carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s.; as

antirheumatic and laxative an effervescent saline containing Colchicine; as general tonic the arsenates of Iron, Quinine and Srychnine with Nuclein. The Strepto-Bacterin, Pneumo-Bacterin or Combined-Bacterin (Van Cott) are always indicated. In the rheumatic form counteririrtation, over the heart, may give relief and the following may be used: an ointment of the following formula, Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1; or, one of the following; Oil of Turpentine m 8; Oil of Cloves m 10; Oil of mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Menthol grs. 16, in ointment base to make oz. 1.

ENDOMETRITIS.

Locally the application of antiseptics. either by tampons, introduction of antiseptic oils within the uterus or by douches. Internally the following are indicated: as alteratives and reconstructants. Iodized Lime, arsenous Iodide; to promote tone, Caulophylloid or Aletroid gr. 1-12; Bryonin gr. 1-500; Caulophylloid gr. 1-6; Macrooid gr. 1-6; Helenoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000; as antispasmodics and sedatives, Anemonin, Viburnoid, Macrooid, or Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12. As selective tonics Aletroid and Ergotoid. In infections either the Coli-Bacterin, Gonococcus-Bacterin-Combined or an autogenous bacterin, as indicated by baceriologic investigation.

ENTEROCOLITIS, ACUTE.

Clear out bowel with combination of Blue mass, Soda, Podophyyling and Juglandoid, in small and frequently repeated doses, followed by saline to effect. Then irrigate the colon twice daily with a 1-500 solution of the sulphocarbolates carrying 2 ozs. of aqueous extract of Calendula, this to be retained. After each stool throw into the rectum two drams of a dilution of Hamamelis, 1 dram of the aqueous extract in oz. 1 of water. The bowels should be cleared out with the above mentioned laxatives every forty-eight hours. By the mouth, every three hours, Hydrastoid, Hamameloid and Calcium sulphocarbolate with Brucine and Nuclein every four hours. Diet suggested to consist of gelatine, clear broths, albumin water, arrowroot gruel lentil gruel, boiled flour or the following food tonic, Defibrinated blood m 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution m 5; Glycerine, sherry wine and Alcohol q. s. to make oz. 1. If there is tendency to collapse or to vomiting either Atropine or Hyoscyamine. As stimulants, Glonoin or Cactoid, never Alcohol. As bitter tonics, nux with Capsicum, Quassoid or Myricoid. To sedate the following combination for either children or adults: Hyoscyamine sulphate gr. 1-2000; Monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajeput, with Oil of Anise and Menthol q. s. After the acute stage, the culture of Bacillus Lactis Bulgaricus to keep bowel clean and prevent recurrence.

ENURESIS.

This is usually a secondary condition, based upon some cause other than absolutely local. This should be hunted out prior to the institution of treatmen. Invariably give the child a full and thorough examination. Examine the urine regularly at stated intervals. Primarily, in the treatment, restrict fluids with the evening meal, and see that the child sleeps in a well ventilated room and that he is lightly covered. For hyperacidity the indication is Lithium benzoate, with either Atropine or Hyoscyamine, with Brucine and the possible addition of Hydrastoid to control the secretion of urine. For this purpose the following

may be of service. Aropine valerate gr. 1-500; Srychnine valerate gr. 1-750; Delphinine (crystal) gr. 1-28; Thujoid gr. 1-32; or Atropine sulphate gr. 1-500; Strychnine sulphate gr. 1-1000; Sodium cantharidate gr. 1-5000; Santonin gr. 1-50. If worms happen to be the cause, Santonin and Calomel, or Chelonoid gr. 1-6; Santonin gr. 1-10; Podophyllin gr. 1-32 meet the indications. For constipation either of the following with morning salines: Phenophthalein grs. 1½; Senna grs. 1½; Sulphur gr. ⅔; Aromatics q. s.: or, Phenolphthalein gr. ½; Calomel gr. 1-6; Aromatics q. s. In rickets or where there is insufficiency of lime the following meets the indications: Calcium lactophosphate: or Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; iodized Lime gr. 1; or, the phosphates of (Iron, (Calcium (Potassium and Magnesium, of each gr. 1-12, with Nuclein solution m 4. In senility, Arbutin, Collinsonoid and Strychnine, with Sodium Cantharidate gr. 1-5000 with each dose as a synergist. As sedatives, the bromides, Gelseminine, Solanine, Cannaboid, Arbutin, Quinine ferrocyanide meet the indications. If there is congestion of the genials, the injection of oily antiseptics is indicated, a solution of Thymol iodide being suggested. It may be necessary to circumcise the boys or operate on the clitoris of the girls. Cold spinal douches and the faradic current may act to raise tone. Have masturbation avoided in both sexes.

EPIDIDYMITIS AND ORCHITIS.

Place patient in bed in all instances. Support the scrotum with either suspensory or by straps across thighs, underneath the bag. Locally, for its antipyretic and counterritant effect Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1. For fever Aconitine or Gelseminine hydrobromide, followed by Atropine in small dosage. The latter to determine the blood to the surfaces and overcome local congestion. For pain the following are indicated, the Hyoscine, Morphine and Cactoid Compound, or Acetanilid grs. 3½; Sodium bromide gr. 1; Caffeine gr. ¼; Codeine sulphate gr. ¼. The oily mixture containing 40 grs. of Thymol iodide may be used to advantage as a urethral injection, also for rectal introduction. Collinsonoid is indicated as an alterative; Echinacoid as a general systemic antiseptic; Anemonin as an antispasmodic; Hamameloid as a tonic astringent; to overcome constipation Phenolphthalein grs. 1½; Senna grs. 2½; Sulphur gr. ⅔; Aromatics q. s. If the condition has become chronic, arsenous iodide or iodized Lime are indicated as absorbents. If gonorrhea is present, Calcium sulphide to act as a general antiseptic, with the following for its local specific effect; Calcium sulphide gr. 1-6; monobromated Camphor gr. 1-6; Cubeb oleoresin gr. 1-64; Piperine gr. 1-64. or, Calcium sulphide gr. 1-6; monobromated Camphor gr. 1-6; Hyoscyamine sulphate gr. 1-6000; Methylene Blue gr. 1-6. It goes without saying that the bowels should be cleared out and kept clean. Calomel, Podophyllin and the salines, followed by the sulphocarbolates. If due to contusion, or metastasis in mumps, only antiphlogistic treatment is required. In specific cases the Gonococcus-Bacterin or Gonococcus-Combined-Bacterin are indicated and should be given in full dose, to effect.

EPILEPSY.

Discover cause, if possible, by thorough examination of patient in all cases. Look for syphilis, trauma, or malformation of the genitals, as phimosis or short, tight prepuce. The toilet of the bowel is of importance. This organ should be cleared out and kept active and the sulphocarbolates

are indiciated invariably. To restore nerve tone the indication is neuro-lecithin. As sedatives, Solanine, Verbenoid, Scutellaroid. Increase the dosage of Solanine and Verbenoid until the effect is manifest, then gradually decrease, until just enough and no more is required to overcome tendency to seizures. As alternative to neuro-lecithin, the phosphates of Iron, Calcium, Potassium and Magnesium with Nuclein, or Nuclein alone. To increase gastric and intestinal function and arouse digestion, Irissoid and Boldine before meals. To obtain a laxative effect on the bowels, the following after meals: Washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Aromatics q. s. Elimination by the bowel, kidneys and skin should be stimulated. To abort attacks, Atropine and Glonoin, followed by large enema, Calomel purge and light diet for twelve hours. The following mixture may be of service as a nerve tonic: Neuro-lecithin gr. ¼; Nuclein solution m 10. Benefit and even cures are reported when the above outlined treatment has been followed.

ERYSIPELAS, IDIOPATHIC.

Isolate the patient and to prevent spreading of the infection, paint the margin of inflamed area with pure Phenol, followed in a minute by Alcohol. As a local antiseptic, a solution of Epsom-Salts with Creolin, or compresses saturated with equal parts of an oil containing an oil carrying the distillate from shale tar and Camphor grs. 20; Menthol grs. 20; liquid Petrolatum q. s. to make oz. 1. The bowels should be thoroughly cleaned out with Calomel, Podophyllin and Irisoid, followed by a saline containing Colchicine. To sedate fever, Aconitine, Digitalin and Veratrine with Pilocarpine hypodermically as a diaphoretic. Nuclein solution, per os or hypodermically every six hours to reinforce the leucocytes and Calcium sulphide to saturation to combat infection. Echinacoid is undoubtedly indicated as a systemic antiseptic. As a tonic, after control is gained, Quinine ferrocyanide gr. 1-64; or Quinine sulphate gr. 1-32, with Iron arsenate gr. 1-64 every three hours. Local application after first twenty-four hours may be changed to solution of either Echinacea or Thuja. If in neglected wound cases or if there is suppurative cellulitis, push Calcium sulphide and Echinacoid gr. 1 of the former and gr. ½ of the latter every two hours, with Nuclein solution, m 20, hypodermically t. i. d. Locally, by inunction colloidal Silver, Guaiacol, Methyl salicylate and Menthol. To sedate fever, Acetanilid or Acetanilid grs. 2; Veratrine hydrochloride gr. 1-128; Ammonium bicarbonate gr. ⅛. As anodynes and hypnotics, Chloral hydrate, the Hyoscine, Morphine and Cactoid combination or Sulphomethane grs. 5; Scutellaroid gr. ⅓; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64. As an absorbent iodized Lime. As heart tonics Caffeine and Cactoid. Brucine as a general stimulant. Intestinal antiseptics, always, in that the bowel may be kept clean. The bacterins and serums are indicated in all cases, especially obstinate. Of the bacterins the Strepto-bacterin, repeated to effect, or the Streptococcus serum, 60 to 80 cc. per day.

FAVUS.

Stimulate elimination by the kidneys, skin and bowels. The arsenates of Iron, Quinine and Strychnine with Nuclein to improve general tone; iodized Lime as an alterative; Calcium sulphide as a general antiseptic and for its effect locally, upon the parasite. Locally, as an antiparasitic, a solution containing 8 per cent of Sulphur, with two drops of formaldehyde to the ounce of an antiseptic oil to loosen crusts, the latter to be removed with a suds of a soap carrying the dis-

tillate from shale tar. The surface to be dressed with either Ichthammon or an oil carrying the distillate from shale tar.

FELON (WHITLOW; PARONCHIA).

Clean thoroughly, then apply to, or dip finger in pure Phenol and after fifteen seconds to a half minute, neutralize with Alcohol. Apply an antiseptic oily dressing. To abort, apply freely, Iodine or Silver nitrate solution. If there is pus, incise and evacuate thoroughly following with pure Phenol application. In all cases clear out the bowel, saturate with Calcium sulphide, with Echinacoid added to every second dose of the latter. Nuclein to induce leucocytosis and increase resistance. As a general tonic the triple arsenates with Nuclein. Irisoid to stimulate bowel elimination and Stillingoid as a general alterative. To increase flow of urine, Arbutin, with Boldine to increase output of urea. Strepto-Bacterin at first then that or Staphylo-Bacterin or Pneumo-Combined-Bacterin, as indicated by bacteriologic test.

GALACTORRHEA.

To decrease the flow, Atropine or Hyoscyamine, with iodized Lime as an absorbent. Ergotoid may decrease flow. Locally, strap the breast, after applying spirit of Camphor, or Camphor in Lanolin. A belladonna plaster, properly applied is effective in many instances.

GASTRALGIA.

For the relief of pain a modification of the Hyoscine Morphine and Cactoid compound, or Strychnine, Morphine and Hyoscyamine at short intervals to effect, or, Resorcin gr. 1-40; Stovaine gr. 1-50; Atropine sulphate gr. 1-2500; Delphinine gr. 1-1000. To correct catarrh and congestion of the mucosa, Cerium exalate gr. 1; Bismuth phenolate gr. 1; Stovaine gr. 1-25: or, Cerium oxalate gr. ¼; Bismuth salicylate gr. ½; Sodium carbonate gr. 1; Manganese dioxide grs. 2, With Menthol or Capsicin. To overcome hyperacidity Calomel gr. 1-16; Sodium bicarbonate gr. ¼; Emetoid gr. 1-128; Bismuth subnitrate gr. ½; Aromatics q. s. As an alterative systemic antiseptic and reconstructant, Nuclein solution m 10; Guaiacol carbonate gr. 1; iodized Lime gr. ½. To relieve spasm, Cannaboid. To relieve pain and as an intestinal antiseptic, Zinc sulphocarbolaet gr. 1; Codeine sulphate gr. ¼; Hyoscyamine sulphate gr. 1-1000; Strychnine sulphate gr. 1-128: or, Zinc sulphocarbolate gr. 1; Codeine sulphate gr. ⅛; Hyoscyamine sulphate gr. 1-2000; Strychnine sulphate gr. 1-128. If due to nervous disorganization, Zinc cyanide. In hysteria Strychnine, Quinine ferrocyanide and Zinc valerate. In hyperchlorhydria one of the digestive compounds, with the Sodium and Xanthoxyloid combination an hour before meals and at bedtime. A Papain compound after eating for general indigestion, with diastase if starchy. To increase the mucous secretion, Emetoid; as an antiseptic antiferment, Resorcin; to improve nerve tone and as a general tonic, Quinine ferroccyanide; to relieve pain and as an anispasmodic, Codeine. Digestive stimulants are frequently indicated, a good one being a combination of Capsicum gr. ⅛; Nux Vomica gr. ¼ or Capsicin or Piperine. Quassoid or Quassin in anorexia.

GASTRIC ULCER.

Place the patient in bed; wash out the stomach; feed per, rectum if necessary; for its supposed specific action on the ulcer Condurangin with Chelidonoid to relieve congestion, with silver oxide to heal ulcer and improve gastic tone. Hydrastoid as a tonic is indicated in some cases and as an antiseptic an aqueous solution of Calendula with Resorcin. Nuclein per os in large doses, with the stomach empty gives good results in some cases. Bismuth, alone or in combination with Cerium oxalate and local anesthetics, is

useful in overcoming acidity and pain. Creosote carbonate, but carefully. As antispasmodics and to relieve the pain the Hyoscine, Morphine and Cactoid compound, Cannaboid, Codeine or Hyoscyamine to effect. For hemorrhage, Atropine to force the blood to the periphery, followed by Hydrastinine. The stomach may be washed out with a solution of Methylene Blue, 1-1000, with Ichthammon internally in m 2 or 3 doses in cinnamon water in robust or ambuant cases. The Bacillus Lactis Bulgaricus, with meals, frequently gives good results. Coli-Bacterin usually indicated.

GASTRITIS, ACUTE (GASTRIC CATARRH).

Apomorphine hypodermically, if due to presence of undigested food in stomach, or large draughts of hot salt water, with lavage in severe cases. For pain, the Hyoscine Morphine and Cactoid compound or, Recorcin gr. 1-40; Stovaine gr. 1-50; Atropine sulphate gr. 1-2500; Delphinine gr. 1-1000, either to be followed by Cerium oxalate gr. 1; Bismuth phenolate gr. 1; Stovaine gr. 1-25. The bowel should be cleared out by Calomel followed by a saline, preferably given in hot water. Light diet. To increase tone of stomach and bowels, Juglandoid and Hydrastoid before meals with a digestive compound after. Menthol may give relief. In acid conditions, Calomel gr. 1-16; Sodium bicarbonate gr. ¼; Emetoid gr. 1-128; Bismuth subnitrate gr. ½; Aromatics q. s. Among the anodynes which are frequently effective are Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Aromatics q. s.: or, Nickel bromide gr. 1-128; Codeine sulphate gr. 1-64; Emetine hydrochloride gr. 1-5000; Lithium carbonate gr. 1-16; Oil of Anise q. s.

GASTRITIS, CHRONIC.

Clear out bowel with Calomel, Podophyllin and Bilein, followed by salines. If necessary, wash out stomach with solution of boric acid, Thymol or Hydrogen peroxide. Always examine stomach contents. The diet should be regulated. To improve tone of mucous membranes, Juglandoid with Collinsonoid and Condurangin, or Hydrastoid, Myricoid or Berberine. Either should be given with stomach empty. One of the digestive compounds after food. As a sedaive and antispasmodic, Hyoscyamine with either silver oxide or Zinc oxide. To overcome the congestion and inflammation in subacute cases, Chelidonoid, and in alcoholic gastritis, arsenic before meals. Bismuth subcarbonate or Bismuth subnitrate with Cerium oxalate are likewise indicated in the latter form of the disease, also in chronic gastric catarrh in children. To favor expulsion of mucus, when abundant, Emetoid in small, repeated doses to nausea, every third day. To correct hyperacidity the following: Calomel gr. 1-16; Sodium bicarbonate gr. ¼; Emetoid gr. 1-128; Bismuth subnitrate gr. ½ Aromatics q. s. As an antiseptic, Resorcin. As an antispasmodic and to relieve pain, Morphine, carefully administered, or better, the Hyoscine, Morphine and Cactoid compound. Sodium sulphocarbolate or the combined sulphocarbolates of Sodium, Calcium and Zinc, with Menthol and Bismuth salicylate, are indicated in all cases and should be given to effect.

GLOSSITIS.

Almost invariably a secondary condition, or symptom, incident to some other irregularity. Look to the teeth, suspect and hunt for acidemia, the later by tests of the urine for degree of acidiy, presence of dextrose, indican skatol or the insufficiency of output of urea and solids. Correct any general disorders discovered, look to proper hygiene and keep mouth cleansed through the use of a mild, alkaline antiseptic solution, or a solution of Zinc sulphocarbolate, several times a day. Invariably the primary indication is

for the clearing of the bowels with Calomel and Podophyllin followed by saline laxatives. To keep bowels clean give from 10 to 20 grains of the combined sulphocarbolates every 3 to 4 hours letting them dissolve either wholly or partially in the mouth for local effect. As alteratives, Stillingoid, Irisoid or Myricoid. As a general tonic he arsenates of Iron, Quinine and Strychnine with Nuclein after meals. Rinsing of the mouth with solution of Thuja, or painting of the tongue with full strength solution of this drug, is suggested. If there is marked acidemia, exhibit the Sodium and Xanthoxyloid combination a half hour before and from one to two hours after meals and at bedtime until such time as the degree of urinary acidity reaches normal, or below.

GOITER (BRONCHOCELE).

Stimulate elimination thoroughly. As absorbents and alteratives, iodized Lime, grs. 1 to 5, t. i. d. with arsenous iodide gr. 1-64 after meals every other week. They may be alternated with Strychnine, Phytolaccoid and Irisoid in full dose. Chromium sulphate, either alone or alternated week about with Nuclein solution m 10; Guaiacol carbonate gr. 1; Iodized Lime gr. ½, with Phytolaccoid and Irisoid as alteratives, are indicated in exophthalmic goiter, and Solis-Cohen suggests Pilocarpine in small, repeated doses in his form of he disease. Quinine hydrobromide and Ergotoid have also been found useful in the exophthalmic form when used over a considerable period. Sparine with Quinine ferroccyanide have also been used with satisfaction, as have Strontium iodide with Atropine. To sedate cardiac excitement, Strophanthin, or better, Cactoid with very small doses or Hyoscine hydrobromide. Thyroid is indicated in some cases, particularly those where there is diminished arterial tension. To allay nervousness and overcome insomnia the valeraes meet the indications. Arsenic in one form or another, is indicated. The Liquor Arsenii Comp. (Barclay) is found useful in obsinate cases. Locally applications of Potassium iodide ointment or tincture of Iodine.

GOUT, ACUTE.

The bowel should be cleared out promptly with blue mass and soda gr. 1, Podophyllin gr. ⅓, Colchicine gr. 1-64, every half hour for four doses, followed in two hours by a saline laxaive carrying Lithium carbonate gr. 1 and Colchicine gr. 1-250 to every ninety grains dose to effect. Following at four hour intervals, either of the following: Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s.: or, Salicylic acid gr. 1; iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromaics q. s.: or, Salicylic acid gr. 1; iodized Lime gr. ⅓; Stillingoid gr 1-6; Colchicine gr 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Aromatics q. s., with addition of colchicine gr. 1-64 or Macrotoid gr. 1-6 to either of the latter two formulas. Any of these better exihibted in hot water. Locally, cold Epsom-Salt compresses. For nocturnal pains, iodized Lime, in full dose. If the case is chronic arsenic in invariably indicated and may be given in the form of arsenous Iodide or Liquor Arsenii Comp. (Barclay) these to be substituted for the iodized Lime. They act as alteratives and absorbents. With the subsidence of the acute symptoms and anti-rheumatics are indicated, such as Salicin, Salicylic acid, Asperin, Sodium salicylate, Colchicine or the following combination: Macrotoid gr. 1-30; Bryonin gr. 1-60; Colchicine gr. 1-1000; Rhusoid (from Rhus Tox) gr. 1-250; Srychnine arsenate gr. 1-250, with the following as a laxative: Washed Sulphur gr. 1-32; Strychnine arsenate gr. 1-128; Podophyllin gr. 1-64; Collinson-

oid gr 1-128; Berberine hydrochloride gr. 1-128: or, washed Sulphur gr. 1-16; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Aromatics q. s. To stimulate hepatic function, Colocynthin; as a diuretic and urinary antiseptic, Lithium benzoate; as a general diuretic and tonic laxative, Hydrastine hydrochloride gr. 1-64; Berberine hydrochloride gr. 1-64; Helenin gr. 1-12; Leptandroid gr. 1-6; Eupatoroid gr 1-12 Locally, as counter-irritants, one of the following ointments: Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1: or, Oil of Turpentine m 8; Oil of Cloves m 10; Oil of Mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Menthol grs. 16; Ointment base q. s. to make oz. 1; or either Aconite or Veratrine liniment. Diet should be extremely light To insure inhibition of the organisms in the alimentary canal the culture of Bacillus Lactis Bulgariccus is indicated. To relieve thirst, barley water with either lemon or orange juice as often as desired.

HAY FEVER.

In this condition there is almost invariably an hyperacidity of the urine with Indican, showing autotoxemia. The Sodium and Xanthoxyloid compound should be pushed whenever this condition is apparent by tests with the Harrower Acidmeter and Indicanmeer. This mixture is best given one hour before meals dry on the tongue and washed down with large draught of water. Locally, to overcome irritation and excessive flow from the nose, the following may be applied: Suprarenal solution m 16; Hydrstine hydrochloride gr. 1; Atropine sulphate gr. 1-30; Glycerine, water and alcohol q. s. to make oz. 1. Internally as an eliminant, for three nights at 8:00, 9:00 and 10:00 p. m., then every second or third night. the following: Calomel gr. 1-6; Leptandroid gr. 1-6; Podophyllin gr. 1-6; Irisoid gr. 1-6. As an alerative, every four hours during the day, the following: Iodized Lime gr. ⅓; Arsenous acid gr. 1-100; Quinine valerate gr. 1-6; Nuclein solution m 2. As a sedative, every three hours during the day, Hydrastine hydrochloride gr. 1-32; Collinsonoid gr. 1-6; Helenin gr. 1-6;

HEADACHE.

Invariably a secondary condition, or a symptom incident to some other abnormality, which latter should be looked to and corrected. Never neglect looking for autoinfection. In migraine or sick headach, one of the Acetanilid compounds, or Ammonium bromide grs. 5, with Cactoid to prevent cardiac depression with the coal-tars. If due to cerebral congestion, Gelsemoid or Gelseminine hydrobromide, followed by very small doses of Atropine every 10 or 15 minutes. If there is plethora, Colchicine. To stimulate hepatic function Irisoid and Leptandroid before, with Chiomanthoid after meals, or one of the following at bed-time: Podophyllin gr. 1-6; Leptandroid gr. 1-6; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-64; Irisoid gr. 1-6; Bilein gr. ⅛: or, Podophyllin gr. ¼; Lepandroid gr. ½; Irisoid gr. ¼; Nux Vomica, extract gr. 1-16; Capsicum, powdered gr. ⅓, one hourly of either for two or three doses before retiring. These latter should be followed by saline laxatives in the morning hereafter, with or without the addition of citrated Caffeine, grs. 2 to 5. If due to cerebral anemia, Glonoin followed by Capsicum gr. ⅛; Nux Vomica gr. ¼. During the menopause the following: Cannaboid gr. 1-6; Atropine sulphate gr. 1-250, with Strychnine and Cactoid during the intervals, or Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr- 1.250; Avenin gr. 1-6; Scutellaroid gr. 1-12. In all cases the bowel should be cleared out thoroughly with Calomel and Podo-

phyllin, followed by saline laxatives. If there is autotoxemia, the sulphocarbolates are always indicated. In some simple headaches, with neausea, a few doses of an effervescent saline laxative given to effect will bring relief. In the nervous forms, the following are indicated: the Bromides, Valerates, Scutellaroid, Cypripedoid, Avenin or Gold bromide gr. 1-250; arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. In the supraorbital or temporal forms, rubifacent ointments locallly, are of use. The nose should have attention and be cleared out with a mild, alkaline antiseptic solution followed by a spray of the following: Camphor grs. 20; Liquid Petrolatum q. s. to make oz. 1. The coal-tars should never be continued over a considerable time, only be used for immediate relief with proper remedies following to obtain full correction of the underlying cause. During the intervals the tonics are indicated, in that the vital forces may be raised to the highest possible point; among those suggested are the following: Nuclein, neuro-Leccithin, Strychnine, the arsenates of Iron, Quinine and Strychnine with Nuclein, or one of the folowing combination: Strychnine arsenate gr. 1-128; Iron arsenate ;gr. 1-32; Manganese phosphate gr. 1-32; or, Calcium lactate grs. 8; Calcium chloride grs. 3, or many of the other tonic compounds.

(To be Continued)

ECLAMPSIA

J. A. BURNETT, M. D.
Hartshorne, Okla.

Charpentier defines clampsia as follows: 'An acute disease coming on during pregnancy labor, or the puerperal state and charcterized by a series of tonic and clonic convulsions, affecting at first the voluntary muscles and finally extending to the involuntary, accompanied by a complete loss of consciousness and ending by a period of coma or sleep which may result in cure or death.'''

Ashton says that Parvin placed the proportion of eclampsia as 1 to 250 or 300 pregnancies, and Lusk placed it at 1 to 500.

I was first licensed to practice medicine in Arkansas, Dec. 16, 1902. I passed the State Board of Medical Examiners of Oklahoma in January, 1910. My Oklahoma license was signed up at the next morning and dated April 12, 1910.

During this time up to the date I am writing this, which is Aug. 20, 1914, I have attended 105 complete obstetrical cases. When I say complete case I mean I had charge of the case from before the child was born until it was all over. I have been connected with 121 obstetric cases. When I say connected I mean I had something to do in the case. I have met with four cases of eclampsia, all since I was licensed to practice in Oklahoma.

This is a greater percentage than given by Parvin or Lusk.

All my cases were young women with the first child. One of my cases died and the three recovered. One of the children was a boy and the other three girls, and all of them lived. My first case was Mrs. C., April 7, 1911. She had several convulsions before the child was born and none afterwards. I controlled the convulsions with hypodermics of H. M. C. and potassium bromide with chloral hydrate by the rectum. Her child was a girl. My second case was Mrs. S., Dec. 6, 1911. She had an easy normal labor and apparently all right until about half an hour after the baby was born.

She was taken with convulsions and continued to have them for several hours. Her child was a girl. Her husband had left her a few months before it was born. She did not know when the child was born and for a space of several days everything was blank to her, so she stated afterwards.

My third case was Miss O., March 15, 1912. This was illegitimate birth by a girl hardly 15 years old. Her child was a girl. She had convulsions both before and after birth and died. This was a sad affair, as the father had driven the girl off before she became pregnant, but she returned home before the child was born. She was treated very unkind at the time.

My fourth case was Mrs. H., in the summer of 1913. She had convulsions both before and after the child was born but recovered.

In my last two cases obstetric forceps were used.

I took my third course in medicine in the University of Arkansas medical department, session 1907-8. At this date Dr. W. H. Miller was professor of obstetrics. I heard Dr. Miller say that ten drops of the fluid extract of apocynum cannabinum three times a day, beginning several weeks before confinement, would prevent convulsions. He had used it in several cases with success in each one where the women had had convulsions in each previous confinement.

I am aware of the fact that I have had a very small obstetric practice and do not claim to be an authority on the subject. My object is to urge the common general practitioners to study their patients more closely and test apocynum. I forgot to state that veratrum is highly recommended by most writers to reduce the pulse and control the convulsions. Some have stated, keep the pulse down with hypodermics of veratrum about the normal standard, and they cannot have convulsions. My first case had several convulsions before I arrived, and I found her pulse about 60, and about fairly normal otherwise.

For further information on this see my article on "Puerperal Eclampsia," January, 1914, St. Louis Medical Era.

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A solution of 2 grains of eucain in one ounce of 80 per cent alcohol has been used by Davis (Lancet, Oct. 18, 1913) for the relief of pain in laryngeal tuberculosis. He injects the solution directly into the superior laryngeal nerve, the parts being rendered tense by extending the head and rotating to the opposite side. The injection is made through the iodinized skin with a Schlosser syringe, the needle being introduced 1.5 centimeters at a (tender) point between the hyoid bone and thyroid cartilage immediately above the thyroid tubecle. As soon as the point of the needle enters the nerve the patient will complain of pain in the ear. An injection of from one to two cubic centimeters is made until the pain in the ear has ceased. In twelve cases so treated there was no mehorrhage, injury to the surrounding structures, or other untoward results.

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For a long time many of the members have felt the need of the Society becoming the owner of a stereoptican. Time and time again we have been compelled to go out and borrow an instrument—and not only this—but also take away from his important work a man not particularly interested in our affairs. Without the aid of a lantern many of our most important meetings would have been impossible. We are now confident of being able to secure a good stereoptical through the generosity of one of Reading's most prominent citizens.—The Bulletin, Berks Co. Med. Society (Pa.)

MISCELLANEOUS

PYORRHEA ALVEOLARIS.

William Waugh, A. M., M. D.

A medical student had several decayed teeth and his gums showed the malady known as gingivitis, pyorrhea alveolaris or Riggs' disease. His general health was poor, digestion impaired, blood thin, body emaciated, nutrition impaired; in short, he was not a well man and all his physiologic functions were below par.

By my advice the man had his teeth attended to by a competent dentist; several snags were extracted and the rest filled, while the pyorrhea was subjected to the treatment devised by Profesor Talbot. The result was a sudden and radical improvement of his health, so marked as to surprise me. The boy's system seemed to rebound as it was released from the depressing influence that had kept it down, and in a few weeks he was "eating like a horse," putting on flesh rapidly, gaining in muscular force and mental power, and showed a psychic elation like that sometimes following recovery from an infectious fever. The health he enjoyed in the next three years warranted him in ascribing the change to the dental work as to a critical epoch in his life.

Pyorrhea affords a typical example of those vicious circles so often witnessed in practice. Once established, this malady keeps itself going. The constant irritation and pain drains the vital energies and prevents the accumulation of a reserve of nervous force. The presence of the products of suppuration in the mouth destroys the appetite and impairs digestion. The depressing influence extends to all the functions and helps to prevent recovery.

The dentist, his attention fixed on the local conditions, struggled for years to find a remedy but failed. Many methods of treatment were suggested but none proved satisfactory. It remained for Professor Talbot of Chicago to combine the science of medicine and the art of dentistry, and, tracing the malady to its true source, to apply the systemic and local remedial measures requisite for a cure.

Here we have one more illustration of the truth that the most accomplished and successful practician in any specialty must be a learned general practician as well. Dentistry is a specialty of general medicine, and the interrelations of the teeth and the rest of the body can not be ignored. Conversely, it would be well if the general practician and specialists in other departments knew enough of the dentist's work to make them appreciate the influence of the teeth upon the other functions.

Doctor Talbot started the hypothesis that pyorrhea was dependent upon fecal retention and autotoxemia. Given a general depravation of the blood by decomposing fecal matter absorbed from the colon and a locus resistentia minoris, or a local depressing influence, and we have the genesis of local disease For a year he subjected this hypohesis to every available test, until he had demonstrated its correctness:

By the discovery of indol and skatol in the urine of the patient.

By treating the malady successfully through emptying and disinfecting the alimentary canal.

By obtaining permanent good effects from local treatment that had previously afforded only imperfect and temporary benefits.

Doctor Talbot went further, and found the presence of acidemia besides fecal contamination of the blood, and showed that this hemic condition was amenable to treatment. Visiting

France, he was impressed with the fact that the French are a nation of soda users. Soda forms the principal remedial ingredient of their national mineral water, that of Vichy. Every drug store, every grocery presents soda put up in various agreeable forms. It seems to form a necessary component of the daily ration there.

That a universal custom has reason behind it, is too obvious a truth to escape the philosophic mind of Doctor Talbot, and in this universal use of soda he saw a general tendency to acidemia. It was this observation that led him to look for the same condition in the numerous victims of Riggs' disease.

The triumphs of modern therapeutics are based upon a knowledge of the pathology of the affections to be treated. There is more of the eternal "trying" of new remedies on everything within reach, until some maladies appear to respond favorably; but knowing the exact derangement of function, we apply the exact remedy. Acidemia means soda; fecal toxemia means catharsis and disinfection. There remains to ascertain the best forms in which to apply the indicated remedies.

Common professional experience has led to the use of compound cathartics. And here also the custom has been justified by later science.

Every cathartic acts in its own way, on a different part of the eliminant apparatus or in a different manner. We may have one drug increasing peristalsis, another inciting the secretion of one or another part of the alimentary canal. One may act on the nerve-centers, others on the nerve-trunks or peripheric terminals or on the muscular fiber; one may incite the activity of the longitudinal fibers, another sedate that of the circular fibers; and so on. We may not be able to say precisely what each of our agents does, but we do know that a better and smoother action is secured from a combination of such remedies than from any one of them. Moreover, we find that the aggregate dose of the compound is far less than that of any one of its ingredients. I have repeatedly called attention to this fact in treating other remedies, but it seems so little comprehended that I shall again proffer an explanation.

Suppose we seek to act on the bowel through the nerves. We start with one-tenth of a sufficient dose of a remedy that ordinary suffices to induce catharsis, by acting on the nerve-centers; to this we add a similar fractional dose of an agent that increases the conductivity of the nerve-cords; and we complete our prescription with a third remedy that increases the irritability of the nerve-ends in the bowel. The increased conductivity of the cord enables it to carry quickly the slight impulse from the centers; and the increased sensitiveness of the bowel makes it respond to the stimulus more readily. The result is that we get from three-quarters of a dose as much action as we should expect from ten-tenths of either of the three agents used.

There are few compound cathartics equal to that so named in the Pharmacopoeia. While the calomel sometimes is advisable, as a rule it is the one thing that, added to the other ingredients, makes perfection. Individual preference counts for much, and every practician has his own favorite formulas. Many employ the combination of calomel and podophyllin, 1-6 grain each, repeated every half hour for six doses, and followed by a saline laxative.

Whatever is employed, the task is not completed until the urine no longer gives the reactions of indican or skatol. It may require repeated catharsis, aided by colonic flushing, before the bowel is emptied.

If the use of intestinal antiseptics—

water-soluble—is not efficacious, there is nothing in clinical observation and the doctor is a superfluity. Many hundreds of observations where these remedies have followed cathartics, and others where the antiseptics have been omitted, have convinced me and hundreds of others that the sulphocarbolates should follow, to disinfect the newly cleansed bowel—and that they do it. Theoretic objections fade before the acid test of actual trial. Anybody can give the sulphocarbolates and note that the abnormal odor disappears from the stools and the symptoms we have learned to associate with fecal toxemia to subside.

Doctor Talbot's treatment of acidemia crystallized in the preparation known as sodoxlyin. Let us analyze this.

The basis of sodoloxylin is sodium bicarbonate, the antacid par excellence. We no longer select lithia as an alkaline; and we know that potassa furnishes a convulsant to the blood.

Next we have sodium sulphate, the special cholagog of the saline laxative group. Sodium sulphocarbolate gives us the antiseptic; colchicine dissipates uric acid; the walnut extractive acts like rhubarb in inciting the digestive secretions; and last comes the prickly ash, xanthoxylon. This latter is a little-known remedy, but it has excited interest of late, since it forms a component of the noted Towne-Lambert treatment for alcohol and drug-habits. Xanthoxylon is an excellent tonic for the stomach, increasing the tonicity and the secretion of gastric juice. It also acts on the liver mildly and probably on the other digestive secretions.

We have, therefore, in this combination the direct antagonist to acidity, and the gentle tonic influence over the digestion that is indicated, besides the antiseptics. Following the clearing and disinfection of the bowels, sodoxylin has fully justified the recommendation of its originator; and at last the true and effective treatment of pyorrhea has been placed in the hands of the physician and dentist.

As the local treatment, Professor Talbot devised a special Gum Massage brush, and a lotion containing zinc sulphocarbolate, to be applied to the gums. The wash is antiseptic enough for the purpose; it is better not to employ the corrosive agents of this group when safer ones will fill the need. There is no possible danger in placing this gum wash in the hands of children.

With this treatment, pyorrhea is promptly cured, and the general health reacts favorably. Individual cases require modification such as the practician is quite able to make for himself; the principle of the treatment remains.

The late Professor Clifford was accustomed to prescribe sulphur as tooth-powder for persons whose teeth were affected with tartar. Used daily, sulphur soon rids the teeth of this undesirable parasite, while it is harmless itself. The sulphur should be used alone; when mixed with chalk, orris, etc., it is ineffective. It probably acts by the formation of sulphydric acid or its salts.

Since Talbot's discovery the most important work on pyorrhea is that reported by Barrett at the last meeting of the Pennsylvania State Dental Association. He traces the origin of this malady to amebic infections, and reports cases treated and cured by the local use of emetine in ½ per cent solution.

If any argument or demonstration were needed to establish he superiority of the active principles over the crude drugs, it is here. Everybody knows ipecac. Every housewife has kept it in her home as a household remedy. Every physician knew "all about it."

Every medical student learned that this root was introduced by the Jesuits as a remedy for dysentery and established its repute in that malady in the days when France yet had kings. For cenuries it hovered on the edge of oblivion in this respect, listed as one of the remedies for this malady, yet, never acknowledge to possess such virtues as would justify us in relying upon it—it was unreliable. Sometimes it acted "like a charm," and then it failed miserably, and precious time was lost.

In India they studied it and found that the value was nil, when ipecac induced vomiting. So they tried a deemetized ipecac, but it did not prove satisfactory. An elaborate system of administration was devised to secure its retention by the stomach, in the huge doses that were found necessary —a dram of the powder—"of a good, fresh specimen."

Comes now Rogers of Calcutta, who administers the pure alkaloid emetine hypodermically, and works miracles. France applies the same wonderful agent to the treatment of bronchial hemorrhages and is amazed at her success. Barrett's application of it in another affection caused by amebae is distinctly a legitimate one and deserves the success he has won. Emetine is doubly indicated here, because it effectually clears the bowels and wrings out the liver, as well as specifiically poisoning the parasites.

And so, emetine joins morphine, strychnine, atropine, quinine, pilocarpine, and cocaine as an accepted member of the pharmacopoeial group of alkaloids. How long is it to be before these gentlemen "catch on" to the other wonder-workers aconitine, veratrine, gelseminine, cicutine, arbutin, et id omne genus

The name of Burggraeve will yet be writ large in the history of medicine.

AMERICAN PROCTOLOGIC SOCIETY.

(Continued from Page 228 August Recorder)

Amebic Dysentery and Its Treatment. By Dr. Wm. M. Beach, of Pittsbugh, Pa.

The writer of this paper states that: (1) Amebic dysentery in the early stages may be cured with emetine. (2) In cases somewhat advanced emetine is efficacious and at least clinically curative. (3) The use of the duodenal tube, through which to introduce solutions of emetine to any portion of the intestinal tract, should receive trial and consideration. (4) For rapid cure, and control, cecostomy or appendicostomy is the best measure in advanced and chronic cases. (5) Direct irrigation from above is superior to rectal injections, in that it is less painful and more thorough. (6) The appendix should be removed in most cases of amebic dysentery. (7) The so-called specific emetine can be easily applied in weak solutions.

The Pathologic Sigmoid Colon and Its Surgery. By L. J. Hirschman, M. D., of Detroit, Mich.

Studies with the fluoroscope and the sigmoidscope have shown that true prolapse and invagination of the sigmoid colon into the rectum is not an uncommon condition. The author advocates shortening the mesentery of the sigmoid by attaching the mesentery of the invaginated or prolapsed portion to the root of the mesentery of the descending colon.

In a number of cases of obstruction to normal defecation, this obstruction will be found in women who give a history of a disturbed puerperium. Radiographic studies of these patients who give a history of chronic constipation accompanied by pain and marked tenderness in the left lower abdominal quadrant and the region of the womb and broad ligaments, more often the left, show the presence of adhesions

which angulate, displace or bind down the sigmoid. The cure of this condition involves the relieving of the adhesions and the covering of raw areas with omental, epiploic or mesenteric grafts, or the excision or short-circuiting of the sigmoid. Another class of adhesions of the sigmoid seriously obstructing defecation is caused by adhesions to the abdominal wound following laparotomy.

Hypertrophy or redundancy of the sigmoid colon is another pathological condition which has not infrequently been met with. When the walls of the bowel contain a large proportion of unyielding fibrous tissue, short-circuiting is insufficient and excision is insufficient and indicated.

In malignant growths of the sigmoid colon, excision with immediate anastomosis is the ideal indication.

When inoperable it is the author's practice to always make the colostomy in the median line. This is done for the following reasons: First, the median incision is the best for exploratory purposes. Second, one has the choice of any part of the colon in the making of the colostomy. Third, one gets just as good adhesions and union, with no more liability to hernia, as in the side. Fourth, the patient is better able to cleanse and dress the colostomy in the median line. Fifth, it takes the colostomy opening away from the neighborhood of the iliac crests, and allows of the better fitting of retention apparatus and colostomy shields. Sixth, control of a median colostomy is just as satisfactory as the lateral.

The author has found no difficulty in securing colostomy controlled by using a small catheter in the mesenteric opening beneath the spur and encircling the upper limb of the colostomy with the catheter, drawing it just snug enough that the mucous surfaces appose. The catheter is held in this position by a seraphine snap and is released by the patient when he wishes to defecate or expel flatus.

Myxorrhea Coli—Myxorrhea Membranacea and M. Colica (Membranous Enteritis—Mucous Colic), by Dr. S. G. Grant of New York City, N. Y.

The essayist explained that myxorrhea coli was a symptom complex characterized by constipation, abdominal pain, uneasiness or soreness and the periodic evacuation of jelly-like strips or casts of tenacious mucus on the one hand or colic on the other and suggested that all mucous discharges be designated as Myxorrheaa Coli with which understanding the former is called Myxorrhea Membranacea and the latter M. Colica. The writer conceded that either type of myxorrhea coli may be secondary to neurogenic disturbances but strongly maintained that M. membranacea and M. colica are frequently produced by many other conditions and diseases, medical and surgical, several of which may be factors in the same case. He had often known these conditions to be caused by psychic, neurogenic, gastrogenic and enterogenic disturbances, adenoidism, thyroid disease, impaired metabolism, abnormal menstruation, affection of the heart, liver and pancreas, inflammatory and ulcerative lesions, (colitis), helminths, foreign bodies, prolonged or irritating colonoclysis, various lesions which induce chronic intestinal obstruction and led to coprostasis and autointoxication and other ailments which cause the hypersecretion or retention of mucus. The writer had observed patients who suffered at first from myorrhea membranacea and later M. colica where the mucus became inspisated, irritating and excited enterospasm.

The writer maintained that the diagnosis was easy in uncomplicated cases and that Myxorrhea Membranacea could be recognized by its symptom complex, obstinate constipation, uneasiness and soreness or pain in the lower left abdominal quadrant and the periodic discharge

of strips, casts, or jelly-like masses of mucus, and that where subsequent to these manifestations and in the absence of signs pointing to intestinal obstruction from other causes colic suddenly supervenes, one is justified in making a diagnosis of myxorrhea colica.

The essayist discountenanced a routine treatment in these cases and advised holding curative measures in the abeyance until the acute symptoms subsided.

The removal or correction of kinks, twists, structures, invaginations, adhesions pericolic membranes and other lesions obstructing the bowel or causing stasis, effected a cure in many of the writer's cases and he rarely found the bowel sufficiently incapacitated to require resection, exclusion, or the establishment of an articial anus.

In conclusion the writer stated that myxorrhea membranacea and M. colica were common affections and more frequently responded to surgical treatment than the literature of the subject would indicate.

Peri Rectal Gumma. Report of two cases by Alois B. Graham, M. D., of Indianapolis, Ind.

The subject of peri rectal gumma owes a great deal of its interest to its rarity. The author reports two cases which are rather unique. They were seen within twenty-four hours of each other, and both presented a typical peri rectal gumma, in that no lesion of any kind could be detected in the rectum of either patient.

The author's conclusions are that peri rectal gummata are rare. The two cases reported are unique and of interest in that both were typical examples of peri rectal gummata. In both cases the gumma was seen in its early or vescular phase. In one case it appeare 23 years after the initial lesion: in the other case it appeared three years following the syphilitic infection. Both gummata were painless to palpation and fluctuation was detected in both. An error of diagnosis in one case was responsible for the incision and subsequent suppuration which followed. In the other case no incision was made and suppuration did not occur. No demonstrable rectal lesion could be discovered in either case. The induration in both cases disappeared rapidly under anti-syphilitic medication. No fistula resulted in either case.

Anal and Rectal Growths of Benign or Doubtful Character, by Dr. T. Chitten Hill of Boston, Mass.

Hill states that in a series of 3,000 rectal cases previously reported there were 49 benign and 76 malignant growths of the rectum. The large majority of these tumors were characteristic and the differential diagnosis was easily made. A few malignant growths seen in an early stage, and some unusual benign types associated with ulceration, were of such a nature that the exact diagnosis was not easily determined.

The writer emphasized the fact that the operative measures to be employed differ radically in each of these conditions. An excision of the rectum is necessary for the malignant cases; a simple local excision is all that is required for the benign growths, where an incision and drainage will suffice for the abscesses and fistulae. Therefore, a doubtful case cannot be treated as a breast case in which a complete amputation for a benign growth may be justified. In the case of the rectum there is not alone mutilation but a high mortality and a serious impairment of function as well to be considered. Furthermore, the removal of a specimen of a suspected tumor is not now approved and this complicates the problem still more.

The histories of several cases which illustrate the doubtful nature of some border line conditions occasionally found in the rectum are cited. They tend to show that aside from benign growths, some of which have many of the chacteristics of malignancy, there are certain abscesses which develop in the loose cellular tissue of the rectro-rectal and pelvirectal spaces which are often more sus-

picious. These indurated, irregular swellings bulging into the rectal ampullae at first resemble very closely the sensation imparted to the finger in malignancy. A little later they become soft and fluctuation is perceptible when all doubt as to their nature is removed. The sinus from an old fistula occupying these same spaces is apt to be much more complexing than an abscess. As the slow process goes on the rectal wall is crowded into the lumen of the bowel and assumes an irregular, indurated outline which is very suggestive of cancer. Other conditions of similar doubtful character such as gummatous growths and tubercular ulceration are also discussed.

Retrorectal Infections, by Collier F. Martin, M. D., of Philadelphia, Pa.

Martin reviews the histories of sixty-seven cases. In addition to the infection of the retrorectal space many of the cases also had involved the pelvirectal and ischiorectal spaces. Some of the more chronic cases were complicated with stricture of the rectum and multiple fistulae.

Eighty-five per cent of the infections occurred in males. External traumatism was not a factor in this series of cases. The author holds that most of these infections originate from internal traumatism, associated with some condition which lowers the resistance of the individual to pyogenic infection.

Pulmonary tuberculosis appears to be most constant factor in thus lowering the resistance. Twenty-one per cent died form tuberculosis at varying periods, either after examination or operation.

Forty-three of the cases are noted as having pulmonary tuberculosis more or less advanced.

Of the fifty-five cases operated upon, thirty-three were cured. These present sixty per cent of the operative cases, or nealy fifty per cent of the total number examined.

In nearly half of the cases the original abscesses had opened posteriorly, either between the sphincters or at the anorectal line. Pain was not a prominent symptom.

The methods of incision applicable to the various complicating conditions are briefly outlined.

The author lays great stress upon the seriousness of these infections, and upon the necessity of the prolonged after treatment.

While the prognosis as to both complete recovery of the local condition and the general health, as well as to the sphincter control, should be guarded, a careful after treatment and prolonged observation will result in saving a large proportion of these really serious cases.

An abbreviated history of the findings in the entire sixty-seven cases is given.

Hemorrrhoids; Their Treatment, by Dr. J. Rawson Pennington, of Chicago, Ill.

Dr. Pennington states that clinically hemorrhoids should be classified:

(1) According to their location.

(2) According to their structure.

According to their structure they are divided into, (a) those containing fluid blood, (b) those containing clotted blood, (c) those containing both fluid and clotted blod, and (d) those consisting of "skin tabs" or folds of skin.

Most hemorrhoidal cases can be operated on under some form of local anesthesia. He operates on 90 per cent of his cases by blocking the field of operation. The cocaine is usually employed in the strength of from one-fourth to one-half of 1 per cent. The quinine and urea in from one-fourth of 1 per cent to 1 per cent solution. Sometimes he combines the solutions, the cocaine being used for its immediate effect and the quinine and urea for prolonging the anesthesia.

During the last 20 years he has given a fair trial to a number of methods advocated which promised a reasonably good result, including the ligature, the clamp and cautery, Whitehead, injection, suturing and other methods which

unite tissue in mass, and has come very definitely to the conclusion that by far the best way of treating this condition is by the excision or enucleation method.

The operative procedure should have for its object the removal of the cause of the tumefaction. The treatment for each type of hemorrhoid should be practically the same. This should consist in removing an ellipse from the tumor-like formation and in the case of the thrombotic pile turning out the clot, and in that of the internal variety the varicosity and allowing the blood to escape, and in the fleshy pile of dissecting out the excess of tissue.

(To be Continued)

A MEDICAL ROORBACK.

By W. T. Marrs, M. D., Peoria, Ill.

The McClure Publishing company is featuring a series of articles in its magazines under the caption of "The New Birth, or The Twilight Sleep." Neither one of these titles would suggest anything specific, but the subject matter relates to a method of making childbirth painless or as nearly so as possible. It is unquestionably a good thing for the dissemination of more light on this subject and, manifestly, it is still more important that it be practiced.

I have read the article in the August Ladies' World in which the method is explained. It is a reasonable story and sounds plausible. In fact I don't see how any intelligent and experienced physician could possibly grow excited over it, for reasons which will be set forth later. This big serial story—using the word "story" in a newspaper sense—plays around a couple of German doctors and their maternity hospital in Freiburg, Germany. The article is copiously illustrated with pictures of the doctors and some of their grateful patrons. It is doubtless written by a lay individual but the fact sticks out clearly that medical inspiration directs a part of it. The doctors have furnished the facts and, incidentally, their photographs. No Sherlock Holmes deduction business is necessary to arrive at this conclusion.

From a perusal of this story the lay person would grasp the idea that here at last something new has been introduced to mitigate the awful pangs of childbirth, but that in order to be a recipient of such a boon and blessing it is necessary to journey across the big pond and tarry in Freiburg until the stork is ready to pay his visit. According to reports women are journeying there from all over the world, some of them once, twice or three times, in order to take advantage of the blessed "twilight sleep" and know not the horrors of travail.

I have intimated that the method employed by these German doctors to make labor easier is something rather tame. The author asserts that there is no mystery or nothing secret about it. It does not consist even in the use of chloroform or ether. No; the plan is to give the patient a dose of morphine and scopolamin! If necessary they give the second or third dose, omitting the morphine if they can. The aim is to give it to the point of obscuring the sensibilities. If the woman remembers that she had a dose and when, this is an indication for another dose. If her memory is temporarily blotted out she will not afterward recall whether she experienced labor pains or not.

That, in brief, is the method. Why journey to Deutchland to get a dose of morphine and scopolamine! I should judge that the minimum expense of taking this trip would be one thousand dollars. It doesn't cost that much to be confined at home, but then the costly things are appreciated much more highly.

We find no fault with these series of articles except that they create the impression that something new has been discovered. Every doctor in the land knows that this is not true. Thousands of doctors everywhere have been using morphine, singly and in combination with scopolamin, hyocine and other drugs, for goodness knows how long for the purpose of lessening the pains of parturition. While scopolamin has not always the analgesic powers of morphine, it has more of a blurring effect on the mind. It blurs the memory, and it is well for the woman to have a good forgettery.

These articles will perhaps do no harm except to belittle the regular family obstetrician in the mind of the woman who reads and becomes obsessed with the idea that "twilight sleep" and "German professors" are the whole thing. In order to offset erroneous opinions the laity should be apprised of the fact that this "twilight sleep" is a very commonplace affair and is not being exploited by the medical profession or any little part of it.

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Burkley, Ky., Sept. 29th 1914.
To Wisconsin Medical Recorder:

To read the literature we receive almost daily of the new ever growing "specifics" for the cure of tuberculosis is really disgusting. Any agency producing positive results would not be long in gaining world wide recognition. It would be very interesting indeed to know the number of cases of tuberculosis absolutely cured by the country physician and the time required to make his cure. Dr. Osler states benefit is usually a matter of months. Complete arrest a matter of years. Absolute cure a matter of many years. I fear many physicians believe that their patients are cured when in reality the disease in in the stage of complete arrest. The earlier we recognize the infection and begin treatment the better will be the prospects of recovery. I don't believe any single element, neither food, air or hydrotherapy promises us any assurance of success. Only the combined fulfilment of all physiologic and hygienic conditions of life to the smallest details gives us a promise of success. W. I. Poole.

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MY CREED.

Do not keep the alabaster boxes of your love and tenderness sealed up until your friends are dead. Fill their lives with sweetness. Speak approving cheering words while their ears can hear them and while their hearts can be thriled and made happier, the kind things you mean to say when they are gone, say before they go. The flowers you mean to send for their coffins, send to brighten and sweeten their homes before they leave them. If my friends have alabaster boxes laid away full of frabrant perfumes and sympathy and affection, which they intend to break over my body, I would in my weary and troubled hours, and muchr ather they would bring them out open them, that I may be refreshed and cheered while I need them. I would rather have a casket without a flower, a funeral without an euology, than a life without the sweetness of love and sympathy. Let us learn to anoint our friends beforehand for their burial. Post-mortem kindness does not cheer the burdened spirit. Flowers on the coffin cast no fragrance backward over the weary way.—Exchange.

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Friar's Balsam (tinct. benzoin comp) to be applied from time to time, forms a protective film quite useful for wound of the mucous membranes (as after operations in the mouth or anus) and for other moist surfaces, e. g., cracked nipples.—Amer. Jour. Surg.

The Wisconsin Medical Recorder

F. W. VAN KIRK. M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 SEPTEMBER, 1914 No. 9

The European war will not only result in changing the map of the old world but it has already presented new problems which are of vital interest both at home and abroad. One of these problems which effects the countries directly involved, is how to avoid the pestilence which threaten from every battlefield and from many of the despoiled towns and cities where povetry and suffering abound.

This question is receiving attention at the hands of some of our most scientific men across the seas and sanitary regulartions are being enforced. It is fortunate that the season is so far advanced as to exclude the spread of some epidemic diseases which have made their apeparnce but the aftermath of war is disease, and more lives are sacrificed than are claimed by all the battle fields.

Many graduates from American Medical Colleges are receiving their first experience in the field hospitals of Europe and this knowledge acquired will be of lasting benefit. The clinic is so lage that it offers every opportunity, and it carries with it responsibilities which must be assumed.

The war is having an influence on all kinds of business in this country and the medical fraternity in not exempt. Prices have advanced on imported drugs and it is an open question as to how long the home supply will last. Many physicians fill their own prescriptions and the inclination is to advance prices. The Recorder invites discussions on this phase of the situation. "War is hell in all directions with nothing to recommend it.

♣ ♣ ♣

An eccentric old doctor, long since dead, used to say that if he saved a patient a run of sickness by a single visit that would have cost the man fifty dolars, that he was entitled to a fifty dollar fee, and puting this principle into practice, it is needless to say that he enjoyed a limited practice, and yet the man was more than half right. He had learned by experience that the doctor does ten fold more for charity every year than the average saint, and is always too modest to advertise the fact. Service is the first consideration. There may be a pay day and there may not, too often "not."

♣ ♣ ♣

The death of Jesse Mercer Battle occurred at St. Louis, Mo. on Wednesday, September Sixteenth, 1914. Mr. Battle was president of Battle & Co., Chemists, and was known to physicians all over the country.

ABSTRACTS

THE BLOOD IN ACIDOSIS.

W. McK. Marriott, St. Louis (Journal A. M. A., Aug. 1, 1914), says we still lack reliable information as to the extent to which acetone bodies may accumulate in the human blood and tissues during life. Diminished alkalinity of the blood, such as may occur in acidosis, is unfavorable to diuresis so it is possible to have a moderately high excretion of acetone bodies with symptoms of severe acid intoxication and in such cases as analysis of the blood should yield valuable diagnostic and pragnostic data. By a method described by him elsewhere (Jour. Biol. Chem., August, 1914), it is possible, he says, to determine acetone, aceto-acetic acid and beta-oxybutyric acid in small amounts of blood drawn directly from a vein. A number of pathologic conditions have been studied in this way and the acetone bodies found in excess of the normal. The highest figures obtainable were from the blood of a patient with severe diabetes and threatening coma. The accumulation of acetone substances in the blood and their excretion in the urine did not always run parallel. Administration of alkali diminished very considerably the concentration of these substances in the blood wi thout at the same time bringing about any appreciable change in the total daily output in the urine. Analysis of the blood for preformed acetone indicated that this substance may amount to more than 60 per cent of the gross aceto-acetic acid in severe diabetes. Alkali therapy showed a relative diminuition of preformed acetone, i. e., it appeared to have decreased the decomposition of aceto-acetic acid. In the bloods examined the ratio of oxybutyric acid to total acetone substances varied from 50 to 80 per cent. The significance of this ratio is not entirely apparent, but it is possible that a high ratio may be an indication of partial asphyxia. While nothing has been said in regard to the conditions in the tissues the blood appears to give a fairly satisfactory index of the extent to which acetone substances may accumulate in the tissues.

PELVIC VARICOCELE.

Pelvic varicocele, or varicocele of the broad ligaments, has but a meager literature but it occurs more commonly than has been supposed, according to W. E. Darnall, Atlantic City (Journal A. M. A., Aug. 1, 1914). Its causes, he says, are more or less obscure but it occurs most frequently in women that have borne children and the veins do sometimes become very much enlarged during pregnancy. It may occur, however, in single women with retrodisplacements who are much on their feet or those with a generally relaxed condition of the tissues, intestinal abnormalities, ovarian infections, etc. The patients specially spoken of are those with irregular, boring pelvic or abdominal pain, sometimes intense, aggravated by standing or walking and at the menstrual period. Ordinary examinations may reveal nothing to explain it if the veins of the broad ligament are not specially inspected and the patient be credited with hysteria. The diagnosis will be by the exclusion of other pathologic conditions and an accurate history of the character of the pain. Medical treatment is only palliative and surgery is the only means of cure. The abdomen is to be opened and the veins ligated at both ends and in the middle and freely cut across between the ligatures. Excision of the veins is essential to secure their collapse and to prevent their restoration after the absorption of the ligatures. Six typical cases are reported, all but one diagnosed correctly before operation.

SALVARSAN IN NON-SPECIFIC DISEASE.

While the use of salvarsan as a sovereign remedy for syphilis has been somewhat of a disappointment, says W. H. Best, Brooklyn (Journal A. M. A., Aug. 1, 1914), its influence on certain non-syphilitic diseases has been such that its use in non-specific cases has been increasing. So far as he knows, however, no attempt has been made to use this drug on the basis of the relationship of the physiologic action of salvarsan to the etiologic, pathology and manifestations of the disease treated. For the past three years there has been conducted in the service of Dr. J. M. Winfield at King's County Hospital a series of examinations for the purpose of establishing the underlying factors governing success or failure of salvarsan in the treatment of non-specific conditions. Best says, "The diseases treated by us include cases of anemia, chancroid, chyluria, elephantiasis, epithelioma, erythema multiforme, leprosy lupus vulgaris, pityriasis rubra, tuberculosis and trichinosis. Realizing the limited scope of our cases, I have supplemented them with a review of the literature. The cases treated by us have been grouped with those taken from the literature for the purpose of obtaining a composite picture of what may be expected from salvarsan therapy in each individual case." From this review he finds that the diseases treated fall into three groups: First, those that were uninfluenced; second, those in which the results were indierent, in some cases culture or improvement and others uninfluenced, and third, those in which a uniform cure or improvement was effected. The first group comprises bbilharziasis, carcinoma, chancroid, erythema multiforme, Hodgkin's disease, psoriasis, rhinoscleroma scarlet fever, sarcoma, trichinosis, trypanosomiasis. There was no reason to expect response to salvarsan in these diseases and only in psoriasis has arenic had a place heretofore in the treatment. The second group is divided by Best into two subgroups. (1) Those of supposed nonparasitic and (2) those of known parasitic origin. 1. Anemia, keratosis, follocularis lichen planus, mycosis fungoides, pemphigus, pellagra, pityriasis rubra and the tuberculides. In these arsenic has always been recommended and used but with no constant results and salvarsan affects them the same. A depelted nervous system plays an important part in each, either primary or secondary and w hatever good is done may be attributed to the tonic action of the arsenic radical. In the second parasitic group includes Aleppo boil, leprosy, lupus vugaris and tuberculosis. In these salvarsan may have a certain germicidal effect though it cannot be absolutely effective as it cannot reach all the parasites. The improvement in leprosy is notable, as shown in a case reported, and here it should be a valuable adjunct to treatment. The third group divides itself into two subgroups (1) filariasis, frambesia, relapsing fever and Vincent's angina. In all these the parasite is a spirillum and with these the results of salvarsan are no less brilliant than with syphilis. Other diseases mentioned are amebic dysentery, anthrax and malaria and in these the arsenic has access to the germs. 2. Acanthosis nigricans, chorea, Duhring's disease, scurvy, ulcus tropicum, variola and verrucae planae. Here the etiologic factors are obsbcure or unknown and the good results cannot be exactly accounted for. Acanthosis nigricans left a suspicious scar in a case reported and a possible specific nature is hinted at. In other diseases, like chorea arsenic has a standby. In Duhring's disease the results of this treatment are more brilliant than those of any other. The following are Best's conclusions: "1. Salvarsan is specific in diseases caused by any variety of

spirillum. 2. Salvarsan has curative property in those diseases in which the infecting organs are found in the blood or lymph, or in other locations where they can be easily reached. 3. Salvarsan has great therapeutic value in these cases in which arsenic has been successfully used. 4. Salvarsan if used with caution in reepated doses over a long period has a therapeutic value in those diseases in which previously arsenic gave indifferent results. 5. Salvarsan used as an adjuvant to some other drug or drugs, is useful in those diseases in which a decided and quick tonic, stimulating and alterative effect is desired, depending on the other drug or drugs for the ultimate result. 6. The mode of administration is important, and should be as follows: intravenous in those diseases in which a specific action is desired; full dose intramuscular inections repeated once or twice at long intervals (eight weeks). in those cases in which the tonic, stimulating and alterative effect is desired, as well as a certain specific action; small, oft-repeated (week or ten days) doses intramuscularly, over a long period of time, in those chronic diseases in which a purely tonic, stimulating and alterative effect is desired."

TEACHING OF SURGICAL TECHNIC.

W. C. Clarke and F. W. Bancroft, New York (Journal A. M. A., Aug. 22, 1914), describe the teaching of surgical technic in the laboratory of research of Columbia Universiy. The courses are given to fourth-year students in a well-equipped animal hospital. There are twelve instructors in surgical technic and two in surgical pathology, and the nurse in charge is a graduate of a hospital training school and is familiar with all surgical requirements. The course is an optional one, but the interest that it has excited is so great that at least three-fourths of the fourth-year students elect it, and each of the sections into which the class is divided averages ten men. The operating room is furnished and equipped on modern lines and the animal hospital is fited up with every regard for comfort. Each animal has its own cage and there are especially heated ones for the recovery from anesthesia. There are bath-tubs, sluicing-hose, proper disinfectants and abundant light and ventilation. Many dogs are received as private patients, and a schedule of operations and of the course is given and the routine of a session described. A student operator is invited to visit his patients during convalescence, necropsies are made in fatal cases and specimens taken for pathologic examination. Several of the unusual causes of death that have occurred are described. The private animal patients have been he means of demonstrating various instructive conditions and the advantages of the course are numerous. The student becomes acquainted with the technic of asepsis, use of surgical instruments and other essentials. He has learned that an operation must be conducted exactly and methodically and has felt a personal responsibility for its success or failure, and after graduation, when he enters practice and is confronted with operations, he is no longer an untrained apprentice.

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The Wiener Klinische Wochenschrift (Vol. XXVI, No. 41) contains a symposium on the results of radium treatment of cancer. The concensus of opinion is tha the effects obtained are by no means uniformly favorable. The bad results noted—especially from over exposure to radium—have been vertigo, vomiting, agitation, poor pulse and emaciation, cariac weakness, headaches, sleeplessness, bladder and intestinal disturbances, among the perma- and collapse as imemdiate symptoms, nent discomforts.

SPIROCHAETA PALLIDA.

H. F. Hartwell, Boston (The Journal A. M. A., July 11, 1914), has studied the blood of twenty-four patients with untreated syphilis by injecting it into the testicle of the rabbit and excising the organ eight months after injection. The cut surfaces of the nodules yielded a clear sticky fluid in which were found the spirochetes. The proctocols of the positive cases are given. In the whole series of cases there were 7 primary cases, the blood from 3 of the patients giving positive results. The other 17 were in the secondary stage and gave seven positive inoculations. "This method of investigation," he says, "offers a ready means for the demonstration of Spirochaeta pallida in the peripheral blood and furnishes convincing proof that syphilis is a chronic septicemia. It further shows that the bloodstrea mis invated at an early period, before the skin manifestations are evident. By this means, without encountering the difficulties attending the isolation of the spirochete from contaminated surface-lesions, we can obtain a strain of Spirochaeta pallida whose identity cannot be called in question."

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A troublesome "erosion" of the cervix may disappear without any other treatment than the replacement by pessary of a coexistent retroflexion.—Amer. Jour. Surg.

♣ ♣ ♣

Hexamethelnamine is recomended by La Roque to prevent excessive tympanites following surgical operation. He gives 10 grains of the drug in solution every two hours.

THE DOCTOR'S LIBRARY

THE CANCER PROBLEM.

By William Seaman Bainbridge, M. D.

Each successive generation has added its quota of theory to the subject of Cancer with now and then a fact to illumine the situation, while the inauguration of what has been called the era of modern or scientific cancer research has produced books, brochures, papers and other contributions in disconcerting volume. It has been correspondingly difficult for those not actually taking part in the campaign of research, and even for those who are the real history makers in this line, to keep abreast of the times and to satisfactorily digest the mass of cancer literature.

In the Prefact to "The Cancer Problem," (The Macmillan Company, New York and London), the author Dr. William Seaman Bainbridge, of New York, says: "With the development of the widespread interest in cancer there has arisen a definite need for a book of ready reference of convenient size, giving in succinct and available form a summary of knowledge concerning the subject. This is needed by the general practitioner, by the specialist, by the intelligent layman, by the lecturer on health matters; in fact, by all who are definitely interested in questions of health maintenance."

Dr. Bainbridge has succeeded in his undertaking remarkably well. Finding it necessary, as he states, "to touch upon practically every phase of the cancer problem, to state theories, to emphasize facts, to review the work and opinions of those who are qualified to speak with authority, and to maintain throughout an attiude of 'suspended judgment pending thereof,'

"he has shown skilful discrimination in winnowing the wheat from the chaff, the fact from the fiction.

The fourteen sections, some of which are subdivided into chapters, the final survey called "The Outlook," the General Bibliography, the Index of Authors, and the very full Index of Subjects, all contain a surprising amount of valuable information concerning this multiplex question.

Practically every class of reader can find within the pages of this book subject matter to suit his particular needs.

The Statistican will find the Section on "Statistical Considerations," a book within itself, full of valuable information and a careful correlation of facts and figures instead of the usual compilation which one is accustomed to encounter under the heading. Careful study of this section will dispel much of the alarm created by those who for so long have harped upon the one string of the increase of cancer. It is to be hoped that American satisticians will be stimulated to remove the stigma which some of our foreign confreres have placed upon our methods of collecting data, so that, in future editions of "The Cancer Problem," the author will not be forced to accept the imputations made abroad.

The laboratory worker will find the Section under "Histo-Pathology" a condensation of knowledge concerning the minute anatomy and pathology of cancer that must prove of great practical value, particularly as it is supplemented wtih a large number of histological plates and other illustrations. This section, together with that part of Secion I which deals with the "History of Modern Cancer Research" and the Section entitled "Cancer Research—A Resume of the World's Work," will give much valuable data to those who are especially interested in he laboratory and purely experimental phases of the subject.

Just at this time, when not only medical societies, but women's clubs, mothers' congresses and very nearly every other variety of organization, are dabbling in cancer study, the section on the "Campaign of Education" will be found peculiarly pertinent. It is interesting to note that Dr. Bainbridge takes a very conservative stand on this particular question of educating the public with reference to cancer. In addition, the sections on "Prophylaxis," "Institutions for the Care of Cancer Patients," and "The Invesigation of Cancer Cures" will give to propagandists much conservative, rational, and logical matter which, if properly digested will augur well for the victim of cancer and for those who, by virtue of age, sex, industrial or other predisposition, are fair subjects for the inroads of this disease.

The clinician, however, is always interested in the vital question, "What can I do for my patients?" Abundant answer to this question is found in the sections on "Clinical Course and Diagnosis" (including a valuable subdivision on "Possible Errors in Diagnosis"); "Non-Surgical Treatment"; "Surgical Treatment" (comprising the subdivisions, "General Technic of Surgery as applied to Cancer" and "Special Technic"); and a practical consideration of "Irremovable Cancer."

After reading Dr. Bainbridge's clear-cut exposition of the entire subject, the reader will be in accord, we think with the closing paragraph of the book: "While it cannot be gainsaid that the cancer problem today is still fraught with perplexity and uncertainty, one indisputable fact stands out in bold relief, serving as both guide-post and danger-signal for the present and the future. If cancer be cut out soon enough a permanent cure is effected. This alone is sufficient to warrant the statement that we are 'travelling hopefully.'"

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VOL. XVII OCTOBER, 1914 No 10.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 246 September Recorder)

HEART, DISORDERS OF.

Invariably make a close and correct diagnosis, prior to institution of treatment. In functional disorders, restore tone with Cactoid, Brucine or Strychnine, care being taken not to overstimulate in any instance, simply enough to restore normal tone of the organ. These remedies are of special use in the condition known as "tobacco heart." In functional disorders always remember that the digestion, elimination or some other body function may be at fault, or that autoxemia may be present. Elimination should be looked after and the initial use of Calomel and Podophyllin, followed by a saline is very frequently the indication. These agents may be all that may be necessary to bring about a full correction. It may be necessary, in emergencies, to clear the bowel with frequent doses of Elaterin or Croton Oil, followed by Elaterin or Apocynoid. To relieve dilatation, for a few days, Digitalin and Strychnine, or Digipoten, three or four times a day, followed by Cactoid, Strophanthin, Adonidin, Convallamarin or Sparteine. If there is palpitation with capillary spasm or stasis, Glonoin, this to be followed by the indicated remedy. If there is dyspnea in this condition it may be relieved by the following indicated remedies; for spasmodic conditions either Codeine or the Hyoscine, Morphine and Cactoid combination hypodermically; if due to accumulation of fluids, Apocynoid, Asparigin, Barasmoid (with Caffeine frequently) or the following: Lithium benzoate gr. 1-6; Barasmoid gr. 1-6; Collinsonoid gr. 1-6; Arbutin gr. 1-6; Oil of Juniper m 1-24, these to increase and maintain kidney function. Strychnine and Atropine are preferablle to alcohol as stimulants, the latter to be used only in emergencies. In enfeeblement, Cactoid and Strychnine or Brucine. If Digitalin or Digipoten fail, replace with Adonidin or Sparteine, or these in combination. If there is arteriosclerosis the indications are for Sparteine, alternated with Cactoid with arsenous Iodide or Liquid Arsenii Comp. (Barclay), in full dosage. For sudden cardiac failure, Glonoin, Digitalin and Atropine hypodermically. To lessen vascular tension in hypertrophy, Veratrine as a sedative. Gelseminine hydrobromide or Aconitine may be used as sedatives in some cases. In valvular diseases the indication are met by the use of Digipoten, Sparteine, Adonidin or Convallamarin. To control cardiac pains and dyspnea and as a tonic diuretic, Caffeine, frequently with Cactoid, is indicated. Monobromated Camphor is frequently a useful addition in this condition. In nervous palpitation. Hyoscyamine is indicated as antispasmodic. In anemia, iron, alternated with Strychnine arsenate; also useful when disturb-

ance is due to indigestion, or excessive use of coffee, tobacco and other stimulants of this character. To clear the bowels, blue mass and soda in full dose. To overcome the dropsy and for dyspnea in cardiac debility, Scillitin, Apocynoid, and Digitalin. If of rheumatic origin, the following are suggested: Collinsonoid, or Strychnine arsenate gr. 1-128; Digitalin gr. 1-64; Iron arsenate gr. 1-128: or, Cactoid gr. 1-64; Quinine arsenate gr. 1-16; Capsicum Oleoresin gr. 1-64; Strychnine arsenate gr. 1-64; or, Digitalin gr. 1-128; Strophanthin gr. 1-5000; Strychnine sulphate gr. 1-500; Sparteine sulphate gr. 1-164; Glonoin gr. 1-500; Cactoid gr. 1-128. In cases of nervous origin the following have their indications: Avenin, Zinc phosphide, the Bromides, or Strychnine sulphate gr. 1-100; Phosphorus gr. 1-200; Atropine sulphate gr. 1-500; Cactoid gr. 1-60.

HEMATEMESIS.

To determine blood to the surface, Glonoin to flushing of face with either Hyoscyamine or Atropine to maintain effect and Hydrastinine as a vasoconstrictor. A modification of the Hyoscine, Morphine and Cactoid combination may replace the Hyoscyamine and Atropine. Tannic acid, for its local astringent effect in gastric ulcer. Stypticin and Ergotoid are also indicated as antihemorrhagics. Atropine, in full physilogic dose, hypodermically, in acute hemorrhage is indicated rationally.

HEMATURIA.

Invariably establish cause and base treatment thereon. To detract blood from the kidneys Atropine is indicated. Arbutin to increase kidney function. Hydrastinine hydrochloride for its hemostatic and contracting action on the blood vessels. Ergotoid, Hamameloid for like effect. Eupurpuroid as a diuretic and slight astringent. Collinsonoid and Chimaphiloid as general alteratives. To dilate capillaries of the general circulation, thus relieving the localized congestion, Glonoin, followed by Atropine or Hyoscyamine, to maintain effect.

HEMOPTISIS.

Atropine is the best antihemorrhagic, given as indicated, with morphine hypodermically to arrest cough and quiet patient. The circulation should be equalized through the use of strychnine arsenate and Digitalin, or Aconitine, Strychnine and Digitalin, with the Calcium salts to increase blood coagulation. The condition may be stopped in some instances with full doses of either Emetine or Apomorphine to point of nausea. In chronic bronchitis, with friable mucosa, Hydrastinine hydrochloride is indicated. To reduce fever, Gelseminine hydrobromide; the special indications for the use thereof being flushed face with restlessness, increased heat of head and coldness of extremities. The "per" salts of Iron may be used as hemostatics, the "proto" salts never. The best hemostatics, under all circumstances are Glonoin gr. 1-500, alternated with Atropine sulphate gr. 1-250. Emetine is indicated when there is much effort required in expectoration and when there is a sensation of "tickling" or bubbling beneath the sternum. As a heart tonic, Cactoid. As there is deficiency in lime salts, usually, Calcium lactophosphate is frequently indicated. There are indication for tonics in practically all cases, in that the general vitality may be raised to the highest possible point.

HEMORRHOIDS.

The bowel should be kept active through the use of the following at night: Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. 2-3; Aromatics q. s., and morning saline. Locally, for its astringent effect a mixture of Tannic acid and white lead, with sodium sulphocarbolate in petrolatum, with Hamameloid, Esculin and Collinsonoid internally. To relieve pain, the follow-

ing applied locally: a mixture of Hydrastinine, Bismuth subgallate, Thujoid, Orthoform and Glycerine in a base of Lanum and Petrolatum Inject, ligate or otherwise remove internal tumors and incise and remove clots from external ones Remove all inflamed "tabs." Dilate the sphincter. Overcome portal congestion through the use of Xanthoxyloid, Irisoid, Leptandroid or Chionanthoid. Increase hepatic function by Colchicine, Calomel, Podophyllin or Bilein, with saline laxatives and the laxatives carrying washed Sulphur for their laxative effect. Lobeloid is useful as a relaxant where there is plethora.

HEPATITIS.

Clear out the bowel with small repeated doses of Calomel or blue mass and Soda with Podophyllin, Leptandroid or Euonymoid at night and morning saline. To increase hepatic function Xanthoxyloid and Juglandoid before meals with Chionanthoid after. As an alterative and absorbent, iodized Lime, grs. 1 to 5, 2 or 3 times a day. Other hepatic stimulants, which have their indications are Bilein, Bryonin, Colocynthin and Colchicine. In all cases regulate diet. Bacillus Lactis Bulgaricus frequently useful.

HERPES LABIALIS.

Usually due to a toxemia. The primary indication is clearing of the bowel with Calomel and Irisoid, followed by a saline to effect. Thereafter, as a tonic and to promote elimination, Quinine ferrocyanide gr. 1-64 and Boldine gr. 1-32 and before meals with a Sulphur laxative after. Locally, Phenol-camphor rubber in, followed by dusting with antiseptic powder. As an alterative, iodized Lime after purgatives. Antiseptic ointments are also indicated as local applications.

HERPES PREPUTIALIS

Two of the following combination, three times a day, is said to effect a satisfactory termination in a large percentage of cases: Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; iodized Lime gr. 1. Locally and antiseptic dusting powder containing the sulphocarbolates with Zinc stearate, a solution of Thuja, or concentrated solution of Nuclein, Echinacea and belladonna. See herpes labialis for further particulars.

HERPES ZOSTER (SHINGLES).

Clear out bowel with Calomel and Podophyllin, or Blue Mass and Soda with salines thereafter and follow with the sulphocarbolates to insure intestinal cleanliness. Improve nerve tone through the use of the arsenates of Iron, Quinine and Strychnine with Nuclein, alternated with Zinc phosphide. The diet should be light and the Bacillus Lactis Bulgaricus given therewith. Antiseptic oils or ointments locally, with benzoinated Collodion painted over vesicles to prevent pitting. Nuclein solution, t. i. d. in 10 m doses to increase leucocytic activity and Calcium sulphide as a general systemic antiseptic and to prevent suppuration are indicated and useful in most cases. Stillingoid and arsenous Iodide, as alteratives and absorbents are indicated. As a nerve tonic the following: Strychnine sulphate gr. 1-100; Phosphorus gr. 1-200; Atropine sulphate gr. 1-500; Cactoid gr. 1-60.

HICCOUGH (SINGULTUS).

Relax with full dose, hypodermically to nausea of either Apomorphine or lobeline sulphate. As sedatives, the Hyoscine, Morphine and Cactoid combination hypodermically, or a modification thereof by the mouth, or Coniine, monobromated Camphor, or the valerates. As a gastric stimulant and to promote removal of gas, Capsicin or Piperine. To prevent recurrence, Brucine. In some cases an application of a 3 per cent solution of Stovaine with suprarenal extract to the nasal and pharyngeal surfaces will relieve. Many me-

chanical methods for relief are suggested but the above medical treatment is usually effective.

HIVES (URTICARIA).

Invariably due to intestinal fermentation or autointoxication, with the indication for prompt elimination. Clear out bowel with Blue Mass and Soda gr. 1 (or Calomel gr. 1-6), Irisoid gr. 1-6 and Podophyllin gr. 1-6, at half hourly intervals till 4 to 6 doses have been taken and follow with a morning saline, this to be done every second night. Follow with the sulphocarbolates, grs. 10 to 20 between meals. The Sodium and Xanthoxyloid compound is indicated, in full dosage at night, if there is acidemia. Quinine ferrocyanide, gr. 1-32 before meals as a tonic, with Boldine added, if there is deficiency in urea output. During the attack, Pilocarpine to diaphoresis, may give relief. Emetoid is of use if due to ingestion of certain articles of food. This should be given in full dose. For the itching Epsom-salt solution followed by an ointment of Camphor grs. 3; Phenol grs. 2; Eucalyptol m 2½; Chlorbutanol grs. 5; enthol gr. 1; Petrolatum q. s. to make oz. 1. Other antiseptic oils and ointments for local use are frquently indicated. Proscribe scratching or other irritation.

HOOKWORM DISEASE (UNICARIASIS).

Thymol is now recognized as the specific. The method of treatment is as follows: last meal at noon, on retiring a full dose of saline laxative, next morning 20 grains of Thymol with like quantity of milk sugar and an hour later a like dose, two hours later a full dose, to effective purgation, of saline laxative. The saline may be given sooner if there are symptoms of Thymol absorption. Oil, fats and alcohol, in any form must not be given in conjunction with Thymol, for obvious reasons. After initial treatment it is well to give the following: the combined sulphocarbolates to which Thymol gr. 1 is added, the dose to be based upon the conditions presenting. The treatment should be repeated at intervals of 2 or 3 weeks until the feces are free from parasites or ova. Nuclein solution and the following, as hematinics, are indicated; Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32.

HORDEOLM (STYE).

Clean out alimentary canal with Calomel and Irisoid at night followed by a morning saline. To prevent pus formation, Calcium sulphide to saturation. To increase elimination, Alnuoid, Echinacoid and Irisoid before meals with a laxative thereafter. Locally an ointment of yellow oxide of mercury gr. 1; Ichthammon m 5; Lanolin and Petrolatum of each drams 2, several times a day, after bathing with a solution of boric acid and Resorcin or Zinc sulphocarbolate. If pus forms, evacuate carefully, apply Phenol, afterwards Alcohol, care being taken to get neither in the eye. Errors of refraction, or conjunctivitis, if corrected will prevent recurrence in many instances. This should be borne in mind. To prevent recurrence, the tonics.

HYDROPHOBIA (RABIES).

The Pasteur treatment being recognized as practically a specific the patient should be taken to one applying such treatment at once. The bit may be treated locally with a potassium permanganate or formaldehye solution. As an anticonvulsant, the Hyoscine, Morphine and Cactoid compound, with Gelseminine hydrobromide to reduce hyperemia of brain and cord. As antispasmodics, Chloral in large dose per rectum, Chloroform by inhalation or Cannaboid per os. To maintain nerve tonic, Neuro-lecithin, with Nuclein to reinforce leucocytes. Do not kill the dog. Confine him for future observation.

HYDROTHORAX.

Induce fluid elimination by Elaterin

or Elaterium for their hydragog cathartic effect; Digitalin and Scillitin to increase urinary flow; Pilocarpine to promote diaphoresis. The heart tonics, Cactoid, Digitalin, Sparteine and Digipoten and the general tonic, Strychnine, have their indications. As a general diuretic, the following is useful and frequently indicated: Lithium benzoate gr. 1-6; Barasmoid gr. 1-6; Collinsonoid gr. 1-6: Arbutin gr. 1-6; Oil of Juniper m 1-24. To equalize the circulation, aconitine.

HYPOCHONDRIASIS.

Due usually to either lack of nerve tone or to inactivity of the liver with portal congestion. The latter being the more frequent cause. The indications are for free elimination. Clear out the bowel with Calomel, Podophyllin and Bilein, every other night for a week, with morning doses of a saline carrying Lithium carbonate and Colchicine. To stimulate gastric and intestinal function and increase hepatic activity, Leptandroid gr. 1-6; Juglandoid gr. 1-6 and Boldine gr. 1-32 before meals, with the following after: Washed Sulphur gr. 1-10; Strychinne arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Carminatives, q. s.; or, Podophyllin gr. 1-3; Quassoid gr. 1-6; Strychnine arsenate gr. 1-128: or, Juglandoid gr. 1-12; Quassoid gr. 1-6; Strychnine arsenate gr. 1-128. As a general nerve tonic the following should be exhibited with the above, three times a day; Neuro-lecithin gr. ¼; Nuclein solution m 10. To control nervousness, particularly in women, the valerates. For loss of appetite, Capsicin, or Capsicum gr. ⅛; Nux vomica gr. ¼, either with Quassoid. After the bowels are cleared out they should be kept clean, in all instances, through the use of the sulphocarbolates. If there are hemorrhoids, rectal congestion or other irritation in that neighborhood, the indications point to the use of Esculin and Hamameloid. To stimulate the brain, in apathetic cases, Caffeine. The following have their indications: As a nervine, Gold bromide gr. 1-250; Arsenous bromide gr 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128; as a general tonic, Strychnine sulphate gr. 1-100; Phosphorus gr. 1-200; Atropine sulphate gr. 1-500; Cactoid gr. 1-60; or, Strychine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32; or, Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4: as a sedative and antispasmodic, Scutellaroid; as hepatic stimulants, Chianthoid or, Chianthoid gr. 1-6; Apocynoid gr. ⅛; Leptandroid gr. 1-6; Podophyllin gr. 1-16; Irisoid gr. 1-6; Asclepidoid gr. 1-6; Colocynthin gr. 1-100. The patient should have plenty of out door exercise, be given a light, but nutritious diet. Flushing of the bowel will assist in removing waste material and, with sponge baths will act as a sedative.

HYSTERIA.

Always give consideration to causative factor and treat the case accordingly. If due to "pure cussedness," an effective hypodermic of Apomorphine will frequently bring about a complete cure. The condition may be due to lack of proper elimination, to intestinal fermentation, or to some abnormality of the pelvic organs, or may be due to the climacteric. If there is faulty elimination with autotoxemia, clear the bowel with either the Cascara Compound (Hinkle), or, Cascaroid gr. 1-6; Strychnine sulphate gr. 1-128 Leptandroid gr. 1-12; Emetoid gr. 1-64; Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. 2-3; Aromatics q. s., at night with morning saline. As a nerve and general tonic Neuro-lecithin gr. ¼; Nuclein solution m 10, between meals. Fifteen minutes before meals, Strychnine arsenate gr. 1-128; Quassoid gr. 1-64; Papain gr. ½; Juglandoid gr. ⅛, to

stimulate digestion and appetite, with Boldine gr. 1-32 to increase hepatic activity, promote secretion of the bile and eliminate urea. After meals, one of the following general tonics: Strychnine arsenate gr. 1-128; Quinine arsenate gr. 1-64; Iron arsenate gr. 1-64; Nuclein solution m 4; or, Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32. In nervous cases the valerates of Strychnine and Quinine are preferable to the ;arsenates. The nuclein and Neuro-lecithin may be replaced by, or alternated with, the following: Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4. To overcome disorders of the menopause, Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12, with Monobromated camphor gr. 1-3 to 1, Scutellaroid gr. 1-3; Cypripedoid gr. 1-3 in extreme nervousness. The folowing nervine has its indications where there is much nervousness, Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. As hypnotics, Hyoscine, or a modification of the Hyoscine, Morphine and Cactoid compound, or the following: Sulphonmethane grs. 5; Scutelaroid gr. 1-3; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64. Invariablly remember that psychology plays an important part in the treatment of this condition. The patient's mind should, if possible, be taken off her condition. Exercise in the open air is always indicated. The diet should be light and nutritious.

ICHTHYOSIS.

To relieve, as a rule, Thyroid, grs. 1 to 5, every three hours. The arsenates, after meals, are indicated. Liquor Arsenii Comp. (Barclay) may be used, but with care. As eliminants, Irisoid and Stillingoid. The skin should be cleansed at night and massaged with an antiseptic oil or ointment.

ICTERUS (JAUNDICE).

Look for primary cause in all instances as this is almost, if not always a condition secondary to some other. In the temporary forms, clearing of the bowels with Blue Mass and Soda, or Calomel, Podophyllin and Bilein, followed by a saline, with hot Epsom-salt sponge baths will frequently correct promptly. To increase hepatic activity, Leptandroid or Euonmymoid before meals, with Chianthoid after. The patient should be given frequent and large drinks of hot water, with or without lemon juice. If there is spasm of the bile duct, Hyoscyamine to effect. In cholelithiasis, Sodium succinate grs. 5 with Boldine gr. 1-32 before meals. The following hepatic stimulants act well as synergists to those agents which have specific indications; Chionanthoid Colchicine, Juglandoid, or, Podophyllin gr. 1-3; Quassoid gr. 1-6; Strychnine arsenate gr. 1-128; or, Juglandoid gr. 1-12; Quassoid gr. 1-6; Strychnine arsenate gr. 1-128: or, Chionanthoid gr. 1-6; Apocynoid gr. ⅛; Leptandroid gr. 1-6; Podophyllin gr. 1-16; Irisoid gr. 1-6; Asclepidoid gr. 1-6; Colocynthin gr. 1-100. The Coli-Bacterin is almost, if not quite, invariably indicated. In those cases known to be typhoid carriers, the Typho-Bacterin should be given in increasing doses, every seventh day.

IMPETIGO.

Elimination should be pushed. Alterative tonics, as the following, are indicated: Strychinine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; iodized lime gr. 1, t. i. d., after meals. Before meals, to stimulate elimination, Irisoid gr. 1-3 with Boldine gr. 1-32. LoLcally, antiseptic oils or ointments to follow thorough cleansing of the surfaces. After acute stage, the following laxative: Washed Sulphur gr. 1-10;

Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Carminatives q. s. in double this amount after each meal.

IMPOTENCE.

Always look to the cause as an indication for proper treatment. If there is nerve exhaustion, the phosphides, or Nuclein solution m 10 with Neuro-lecithin gr. ¼, or Strychnine hypophosphite gr. 1-100; Phosphorus gr. 1-200; Cornuoid gr. 1-6; Cactoid gr. 1-64; Nuclein solution m 5, are indicated. Elimination may be at fault, if so it should be stimulated. Nutrition should be improved. Look for and treat prostatic hypertrophy. In many instances sexual rest for a time, may relieve, as will mental or physical repose. If there is lack of cardiac tone, the indication is for Cactoid and Brucine. The following are indicated: Sanguinarine in figidity; as tonics, Zinc phosphide, or, Strychnine sulphate gr. 1-100; Phosphorus gr. 1-200; Atropine sulphate gr. 1-500; Cactoid gr. 1-60: or, the Phosphates of Iron, Calcium, Potassium and Magnesium, of each gr. 1-12, with Nuclein solution m 4, these to be given in conjunction with the following as indicated: Cannaboid, as an antispasmodic; Cornuoid, as a tonic and antizymodic; Hydrastoid or Hydrastine hydrochloride to overcome relaxed conditions. Hot saline enemas are at times effective, as is the faradic current. Prostatic injections of Thymol iodide grs. 40 in a vegetable oil, are useful. Keep the patient under observation over a prolonged period and meet the indications as they arise.

INFLUENZA. LA GRIPPE. (SEE CORYZA. BRONCHITIS).

The patient should be confined to his room, better in bed. All excretions, sputum and nasal should be treated with antiseptics and burned. The bowels should be promptly cleared out with Calomel, Podophyllin and Bilein, followed by a saline. The entire body should be bathed with a creolinized Epsom solution and the nose cleansed with a mild, alkaline, antiseptic solution followed by a spray of Camphor grs. 20; Menthol grs. 20; Liquid Petrolatum q. s. to make oz. 1 Iodized Lime, as a general alterative grs. 1 to 2 hourly, with Nuclein m 10 every two hours to reinforce the leucocytes, or iodized Lime gr. 1; Mercuric iodide gr. 1-64; Strychnine arsenate gr. 1-128; Phytolaccoid gr. 1-6; Nuclein solution m 2, every two to three hours. To control hyperpyrexia and sedate heart, Gelseminine hydrobromide or Aconitine with Atropine and Quinine arsenate, with Capsicin if there is depression. When the temperature drops below 100, drop the Gelseminine or Aconitine and the Atropine when pain disappears. The bowels should be kept active and the sulphocarbolates exhibited to insure intestinal cleanliness. To control pain, one of the Acetanilid mixtures, with the heart guarded by Cactoid, gr. 1-64 to 1-32 with each dose. For the cough, either Ammonium chloride gr. ¼; Extract licorice gr. ⅛; Codeine sulphate gr. 1-32; Cubeb oleoresin gr. 1-32: or, Lactucaroid gr. 1-3; Morphine sulphate gr. 1-128; Emetoid gr. 1-250; monobromated Camphor gr. 1-32; Licorice (solid extract) gr. 1; Aromatics q. s. As stimulant expectorants, Emetine, Emetoid, Sanguinarine or Scillitin, with Calcium sulphide or Apomorphine to liquefy secretions. The following laxative and antipyretic combination may be useful: Quinine hydrobromide gr. 1; Acetanilid gr. 1; Gelsemoid gr. 1-50; Aloin gr. 1-10; Podophyllin gr. 1-20. For its alterative and absorbent effect, arsenous iodide. Digipotent to stimulate the heart. As antispasmodics, Gelsemoid, Atropine, Morphine (very cautiously), Codeine. To meet indications for Quinine and as an antizymotic, the ferrocyanide. If there are rheumatic complications, salol and the salicylates. During the acute stage the following

are frequently indicated; Nuclein solution m 10; Guaiacol carbonate gr. 1; iodized Lime gr. ½, and the arsenates of Iron, Quinine and Strychnine with Nuclein. Calcium sulphide, to saturation, to combat infection is invariably indicated. The following has been found very useful: Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hydrobromide gr. 1-3000, to be pushed hard until the Aconitine effect is demonstrated and then continued at longer intervals to maintain. Never more than "dose enough" to therapeutic effect in this condition.

INSOMNIA.

Look for and correct cause. Frequently due to faulty elimination or digestion both of whwich shoud be corrected. Warm sponge baths with subsequent alcohol rub to sedate. If of sedentary habit, have patient take out-of-door exercise to the point of feeling tired. This will improve elimination. Hypnotics should not be given, excepting in emergencies, and never over any considerable time, as they may increase rather than relieve the condition. Avenin or passaflora incarnata may be efficient in some cases. One grain of the former or 1 dram of a fluid preparation of the latter. The folowing may be used as hynotics: Hyoscine hydrobromide, monobromated Camphor, Butylchloral hydrate, Codeine or Morphine (the latter with great care), a modification of the Hyoscine, Morphine and Cactoid compound, Cannaboid or Scutellaroid: or one of the following combinations: Hyoscyamine sulphate gr. 1-2000; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajaput, with Oil Anise and Menthol q. s.; or, Sulphonmethane grs. 5; Scutellaroid gr. 1-3; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64.

(To be Continued)

THERAPEUTIC NOTES

R. J. SMITH, M. D.,
Bancroft, Idaho

ECLAMPSIA.

Prevent its development by measuring blood-pressure and analyzing the urine, early and often.

Give veratrine to reduce pulse gradually to 60 or 70, keeping it there for days with dose enough daily.

Echinacoid or spec. echafalta, calcium sulphide to correct blood dyserasia. Subculayed Lobelia if necessary; when convulsions are threatening, when there is great nervous excitability, to remove irritation of nerve centers.

Menopause—artificial and natural:

Nervous and congestive disturbances of reflex origin, hot flashes, neurasthenic symptoms, attacks of abdominal pain, give corpus lutem subtract, grs. 5, three times daily, watching blood pressure carefully.

In hemorrhage, atropine, hydrastine, and ergatoid in combination or separately as indicated.

For headache, nervous conditions, macrotoid and gelseminine.

Depleting suppositories for pelvic congestion.

Laxatives and galactenzyme (Bulgarian bacillus) for chronic constipation and autoxemia.

Ptomaine poisoning:

Wash out stomach thoroughly with warm normal saline solution. Hypodermics of strychnine and atropine, camphorated oil to support heart. H.-M.-C for spasm and pain. Calsoda in small divided doses followed by a saline laxative to cleanse stomach and bowel, warm enemata. External heat.

Puerperal fever:

Irrigate uterus carefully and thor-

oughly wish ℥i Tinct. Iodine to quart sterile water hot. Apply full strength Tinct. Iodine to uterine cavity, to os and vaginal membrane.

Give calomel and soda freely with castor oil or salines to produce free movement of bowels.

Give calcium sulphide and echafalta to saturation. Supportive treatment. Anti-Streptococcus serum and streptobacterin.

Mastitis:

Apply hot epsom salts solution supporting breasts in a sling: or warm compresses of phytolacca, ℥i; to alcohol ℥ij and water to 01. (Use specific tinct.) Give one granule of phytolaccoid with a granule each of aconitine hydrobromide 1-800 gr. and hyoscyamine sulphate 1-100 gr. every hour for six or eight doses. Free purgation. Radial incision if pus forms. Calcium sulphide ½ gr. to saturation, with echinacoid in full doses in event of suppuration. Nuclein 20• m. hypodermically every 12 hours.

Lumbago—Myositis:

Correct acidemia by calsoda and salithia, followed by Sadoxylin (Sodium and Hanthoxyloid Co.) and Galactemzyml freely.

Give macratoid and gelseminine hydrobrom in full doses.

Apply some rubefacient ointment and followed with compresses of hot spoon salts solution.

Hemorrhage:

Emetine hydrochloride gr. ½ every 8 or 12 hours. Atropine sulphate hypodermically 1-150 to 1-100 gr. Inject human serum.

Calcium chloride and lactate in 15 gr. doses every 4 hours.

Gallstones:

Sodium succinate grs. 5 four times daily for one year or more.

Bilein or bile sals daily.

Live simply, eat slowly, drink freely—of water—H-M-C for pain.

Enlarged Thyroid:

Phytolaccoid, irisoid and calxiodata (calcidin) in full doses. Polymmia uvedalia is recommended by eclectics.

Iodine internally and externally.

Thyroid extract in hypotension.

Boils:

Saturate with calcium sulphide.

In recurrent attacks, give echinacea or echafalta. Paint around inflamed part with flexible collodian, applied several times a day until boil discharges.

Urticaria:

A hypodermic of 10 min. of solution Adrenalin Chloride (1-1000) will relieve in a few minutes. A restricted diet with low protein content is successful in removing the cause—putrefaction of histidin in the intestinal canal. Histidin is one of the amino-acids normally produced in the pancreatic digestion of proteids. Restrict albumen for two weeks.

Galactenzyme gives good results.

"Clean up, clean out and keep clean" is good advice.

DOCTORS AS GOOD ROADS BOOSTERS.

It is with much chagrin that we note the adverse action of the McLean County Board of Supervisors on the hard roads proposition. No class of men in the country feel the need of hard roads more than the physicians, and it was fondly hoped that McLean County would fall in line and make a beginning in the development of good roads. It is understood that there is a bare chance of still obtaining a share of the money set aside by the State for this cause if prompt favorable action is taken by our Board of Supervisors. We suggest that our members urge their Supervisors to reconsider the matter and endeavor to persuade them of the error of their ways and to vote favorably for the hard roads.—The Bulletin, McLean Co. M. S. (Ill.).

VALUE of COMMON SENSE IN PRACTICE of MEDICINE

JOHN A. BURNETT, M. D.
Hartshorne, Oklo.

In the St. Louis Medical Era, April 1904, I have an article by the above title in which I write as follows:

"In the practice of medicine a physician must use judgment in order to be successful.

"There is too much tendency by the ordinary physician to treat all patients alike regardless of conditions, complexion, temperament, etc."

Again I stated:

"A physician should never try to treat all patients that apply for treatment. He should only treat such patients as harmonize with him in temperament. If physicians will remember this and use tact in sending certain patients to the 'other doctor' and in making a proper selection for a suitable nurse for the patients he treats it will greatly aid him in making a success in the practice of medicine. Many will doubt this but unless a physician is a character reader a judge of human nature—he will never make a success unless it is by accident for it is takes this knowledge in order to use good judgment in the various mental and physicial conditions of patients."

In the American Medical Journal, April, 1907, I have an article on "A Few Hints and Suggestions on the Various Systems, Methods and 'Hobbies' in the Treatment and Prevention of Disease." This article covers 16 pages I begin it as follows:

"In the treatment and prevention of diseases here are various different systems, methods and 'hobbies' used and each one deserves a personal investigation by all physicians." In the American Medical Journal, June, 1907, I have an article on "Astrology" which contains 20 octavo pages. Here is the second paragraph from my article on "Astrology":

"Most physicians do not know anything about astrology as they have never given it a single thought and are too prejudiced to do so hence they know nothing about it only they have heard some one say it was a 'humbug' and the person that said it like them had never investigated it and knew nothing about it. This is why false ideas creep into use and the excess of approbativeness keeps them in the minds of the people. An excess of approbativeness causes a person to not have 'backbone' enough to assert that they know to be a fact for fear of criticism or the love to be on the popular side. They are 'wish-a-washy' enough to not stand for what they know to be the truth."

I was born November 13, 1872, about 4:00 P. M. about four miles southeast of Greenwood, Ark., in Sebastian County. I am in one of the water signs and in scorpio. I find by experience that I can get better results in patients that are in the water or earth signs than those in the air and fire.

A close observer can learn much from astrology by simply using common sense and observation. Of course I am aware of the fact that many will not agree with me in my views on astrology but that is alright. I do not write this for controversy nor discussion but to draw attention to a subject that in my opionon deserves some attention. One thing I wish to impress and that is always investigate personally and thoroughly before coming to a final conclusion.

In the American Medical Journal, Feb., 1907, I have an article on "Liberal Views." The first paragraph is as follows:

"Physicians should be liberal in their views and not bound down by

so called authority, i. e., let others do their thinking. Every physician should do his own thinking even if he be severely criticised by some of the so-called authorities who know it all (in his opinion)."

ELECTRICITY and its APPLICATION in MEDICINE

ZACHARIAH. G JONES, M. D. Kansas City, Mo.

The object in presenting this paper to my readers is to enlighten them upon the uses and possibilities of electrification when properly and scientifically applied in the treatment of disease. That "something" to which we commonly apply the term electricity had its beginning in the hands of mankind about 600 years before the beginning of the Christian Era. From the fragment of knowledge—that amber when rubbed with wool would attract light bodies—developed the great science of electricity. Thales, who has been given the credit for making this discovery did not know why the amber when subjected to friction with wool should possess this power, and we of the 20th century cannot tell. Ofttimes I have heard the question—what is electricity? And the answer varies with the person who attempts to define it. Some will show their intelligence by saying that they do not know, while others will demonstrate ignorance by attempting to define it. The fact that we can not say what electricity is does not mean that we do not undersand it for there are many things in this world that we cannot clearly define. The mind, for example, is a condition which has never been clearly defined, although we all think that we understand at least something about it. Life, too, cannot be defined, yet we know many of its qualities. I once asked my Professor of Psychology to give me a definition of consciousness, and he replied it was that indefinable condition of mind which gave us the power to perceive things. This is not a definition of consciousness, it only tells what it does. We can enumerate a number of things that electricity will do. Our Lord taught by comparison and our method of defining things is to show a likeness or difference to something else with which we are better acquainted, hence anything that stands in a class to itself in our knowledge or description of things we speak of as being indefinable, therefore, in-so-much as there is nothing in the world that is similar to electricity we cannot say in a few words just what it is but we who desire to investigate it must be patient and study its nature and effects and the laws which govern it, and then decide for ourselves what it is. We can manufacture it and take it where we want it and use it to advantage, yet it does not occupy space, nor we cannot see it, taste it, smell it, hear it, nor weigh it, but we can measure it, control it; and, in fact, it is one of our best servants, or as Bennett says, "It is a good servant but a bad master." I might say that electricity is a metaphysical problem, a condition possessing indefinable or unlimited power when so arranged as to be utilized. Electricity in itself is not an "energy" nor a "power" as some have attempted to define it but is only a metaphysical condition which is capable of being transformed into either an energy or a power. When an electrical current is poured into the proper kind of a mechanical device it will serve us faithfully and will do things that nothing else in the world will do. It will carry us about, and make us light, make us

warm, and make us cool, deliver our messages, and last but not least it will relieve our pains and cure our ills. It is this last named service in which we are presently interested. To Dr. Gilbert of Colchester, England, is due the credit of first rationally applying this phenomena in the treatment of disease. This was about the year 1600 but Galvani in the latter part of the eighteenth century gave us the modality which now occupies the most prominent place in this important therapeutic science. This modality has been named after its discoverer and is called galvanic electricity. It is a current obtained either from cells or from a direct current dynamo. It has distinct polarity, or i. e., one armature (from which the line wire is taken off) always carries the positive pole while the other armature or live wire always carries the negative pole. This modality, by virtue of its constant polarity, has the power to produce atomic disintegration of chemical substances which offer slight resistance to the passage of the current. We who are acquainted with the mariners compass know that it possesses the property to adjust its needle in a certain direction. The reason of this is that the needle is magnetized, i. e. it is charged with a magnetic or Galvanic current of electrification, one end possessing the properties of the positive pole, and the other end possessing the properties of the negative pole. Therefore, insomuch, as the north magnetic pole of the earth, which is located in Hudson Bay, is positive it will attract the negative end of all bodies that are magnetically charged towards it, and will repell all positively magnetically charged bodies, hence the negative end of the compass needle turns north. Unlike attracts and like repells. If both poles of a constant poled magnetic current are brought close together and each connected to the same body or mass which offers some resistance to the passage of the current, but which will allow the current to pass through, all the element contained in the resistant material will undergo a change and all the electro positive elements will move towards the negative pole while all the electro negative elements will move towards the positive pole. This process, of course, requires a strong current or a mild current applied for a long time. If the substance or elements which have disintegrated were in normal quantivalence the process will not hold very long after the passage of the current has been stopped for the reason that there is a tendency upon the part of the elements to resume their normal position so as to satisfy their normal automic magnetic attraction or cell element equiliberium, thus no harm can come from the passage of a mild current through animal tissue. If the tissue be abnormal, however, or diseased there is an elementary accumulation at the diseased spot, which is in some way in abundance. Take for example a tumor. Here there is an abundance of tissue attracted to a certain point which is proportionately abnormal, in its elementary quantivalence or chemical composition and this abnormal accumulation should be dissolved or broken up and made into natural tissue. Now the desideratum has been for some method by which this effect could be brought about. We recall the power that magnetism has to disintegrate chemical compounds, each part being attracted by one or the other pole; hence we naturally apply this current. I am going to describe a case a little later on in which I treat a lady who was suffering with a large fibroid tumor and you will see the beautiful results, how she was able to go right along with her household duties, suffer no pain to speak of, did not have to undergo a dangerous mutilating operation and today is well, the tumor is gone, and the patient is happy.

Fibroid tumors, however, are not the only dreaded diseases that can be successfully treated with electricity but it has a wide range of usefulness. Space will not permit me to go into detail to describe all the ailments to which mankind is heir, in which electrification can be beneficially applied, but I will describe a few sample cases that have come under my observation and will then tabulate a more comprehensive list of diseases, and symptoms and will ask my reader to correspond with me regarding any particular disease or symptom that is not found listed and I will gladly furnish such additional information as I can. I might add here, however, that this particular current of electrification is useful in all inflammatory conditions that are so situated that they can be conveniently gotten to, and for all trophic, or enlarged or hypertrophic conditions, or for any other condition where it is necessary to promote absorption or supply nourishment. It is also useful to destroy structures, and to break down adhesions, and to relieve pain. I hope that my professional brethren will view the above remarks in their proper light for it is foreign to my intention to inculcate anything in this article which will in any way tend to mislead any one and I assure my readers that should a misinterpretation cloud a proper and rational conception of a true statement it will be cleared up if I am consulted. My reason for going into as much detail is on account of the prevalence of ignorance among the profession regarding the scope of usefulness of the electrical currents in the treatment of disease. It is not altogether the fault of the physician that he is not posted in this line of work because it is not taught to any extent in the medical college and besides the regular physician has not the time to devote to the study of electro-physics to properly equip himself for its intelligent application, and thirdly, it would not pay the general practitioner to make the enormous investment necessary to properly administer it, and last, he has seen some form of electrification administered so much without results that he has lost cofidence in its therapeutic value. On the other hand I do think that the physician is directly responsible for condemning something that he knows almost nothing about and because he has seen a toy household battery used irrationally without success he should not condemn the whole system of electrotherapeutics, for it stands to reason and I believe that my reader will agree with me that if all the good that could be obtained from elecrification could be put up in a small box about 6x8x4 that can be bought for about $2.50 that the larger and more perfect machines would soon go out of date, for no one would invest several hundred dollars in equipment if $2.00 or $3.00 would do just as well. In fact, my office equipment has cost me several thousand dollars and instead of depending upon one almost useless current, such as is obtained from the small box described above I have fifty different currents and combinations in my office to say nothing of the wide range of their scientific application. To offer a little comparison one had just as well rent a store room alongside of a large dry goods store and put in one bolt of burlap and put out a sign "Dry Goods Store." This is true enough a crude expression but it is just as reasonable to try to conduct a dry goods store with a bolt of burlap as it is to treat all kinds of diseases with a little box such as I have described above. I have been talking about the direct or galvanic current so far but there are other kinds of electricity which possess therapeutic properties distinctly different from the one just described. You will recall that the direct current always has the positive pole on one side

and the negative pole on the other. Each pole has a very distinct effect upon the tissues to which it is applied and it is on this account that this current is so valuable in certain ways. It is the magnetic current obtained from a dynamo that is so extensively used for lighting purposes and for power, and for plating metals. It often happens that the current is wanted several miles distant from where it is generated and to transmit an electric current a long distance it is necessary to put on more force, and it is the force that we call voltage or volts, and when the voltage of a direct current is raised up into the thousands so as to send a sufficient amount of it far enough to be of much use the generator will get hot, and it was found necessary to put in power stations along the line of an interurban railway so that a new supply could be had about every so often. These power plants were expensive and so the investigators put out to devise some means by which the current could be carried further. It was found that a simple device attached to the axle of the dyamo would cause the poles to change from one side to the other the changes depending upon the rapidity at which the dynamo was turned. It was calculated that every time the poles would make a complete change and get back to where they started should be called a cycle, and it was found that this change took place twice as fast as the dynamo was turned. We often hear of the alternating current, which means that the poles change about or alternate and when we speak of cycalage we mean the number of times that the poles change in a given length of time. Usually we refer to one second. Then if the dynamo makes 1800 revolutions a minute we have 7,200 cycles a minute or 60 cycles a second. This is the commonest form of the altenating current and the voltage can be raised to a very high tension without the dynamo getting hot. For example, the current used in Buffalo, N. Y., is generated at Niagara Falls, fifty miles away and has a tension of 60,000 volts. This current, of course, is very dangerous but before it reaches the city it is run through a device which reduces its voltage so that it can be used safely. As a result of the cheapness of the alternating current the supply companies began to use it in the cities and, hence, we doctors were deprived of our old friend—the direct or galvanic current—but we also began to devise some means of supplying ourselves without using cells and finally it was found that by passing the alternating current through a certain contrivance that we could separate the poles and have the positive always on one wire and the negative always on the other wire. In other words we can now take the alternating current from the line wire and run it through a box and when it comes out it will be the direct current. We also make for our own use a small dyamo which will supply us with a sufficient amount of direct current for treatment purposes, so that now we are as well off as we were before the alternating current came into use. The electrical doctors began to investigate the alternating current to see if it could not be used for something and it was found that it possessed certain qualities which promises to be very useful, and so the name sinusoidal was applied to this current. This current also possesses the magnetism effects of the current just described but without the distinct polar effects. It is also very useful in producing muscular contractions without causing pain. The rapidity of the cycles can be varied from very few up to many thousand a minute. The slow reversals of the poles gives the muscles and tissues through which it passes a rythmic action which is very beneficial in the way of exercising the muscular tissue. Many diseases

can be treated with the sinusoidal current and its use in the new system of treatment known as Spondylotherapeutics makes it one of the most useful modalities. A number of stomach troubles, heart troubles, diseases of women, and goiter respond to its influence. I shall not attempt to enumerate all the diseases that can be treated with this current but I will say that it has a very broad field of usefulness and the entire system of spondylotherapeutics can be practiced with this current alone. This current offers us a modality that when perfected will be a boon to humanity. It can be applied in such a way that a patient can be operated upon without any sense of pain whatsoever, in fact, no more than would be experienced while under the influence of chloroform. It has the advantage of leaving no after effects and as soon as the current is removed the patient regains consciousness and there is no sign of suffering and no danger from its use; hence, it promises to furnish us with a safe, harmless, and agreeable anesthetic. This apparatus has not been perfected as yet, however, for use upon human beings but has been tried and found to work on lower animals. It is the alternated current that is used on the "Electric chair." This is high power current, however. We have probably all read about Benjamin Franklin sailing a kite into the air during an electric storm and attracting the lightning to the ground. It is said that Franklin intended to shock a goose with the current but after the experiment he said that the "gander" got a worse shock than the goose did. The current produced in the air which causes lightning is not the same kind of current as those described above, for it is a rather peculiar condition which is caused by friction and does not require chemicals nor a dynamo to generate it. We produce this current artificially by means of a friction device which we call a static machine. It is this current, or an imitation of it which is used to produce the X-Ray. The franklintic current is the highest tentioned current that we have. It is perfectly harmless in its effects, however, and when it is properly used it becomes one of our most valuable remedies in the treatment of a large number of diseases. It has a special influence upon the nervous system, and I am going to describe a case of locomotor ataxia a little later on which was practically cured with this current.

Electricians are generally inclined to classify the electrical currents into three grand divisions: Magnetic, dynamic and static. The dynamo is an instrument the inside of which is magnetic and I have talked about the direct, the alternating, and the static currents as though they were entirely separate and distinct, but I want to make it clear that any kind of classification is literally incorrect so I have not attempted to treat of the various electrical currents according to any particular kind of classification. My intention in having as much to say about electro-physics as I have because I thought that to give some of the underlying principles of the physical properties of the different currents would aid greatly in giving my reader a better understanding of why they should produce the effects that they do, and if my reader is sufficiently interested in any particular case to want to investigate how electricity would be applied I shall be glad to have him consult with me or to correspond with me and I will gladly give him as much information as I can if he will inclose a stamp for reply.

I do not believe in criticising any one and I make a practice to abstain from it as much as I can, but when I see too much going on that needs criticism I believe in speaking my mind and putting it in plain words so that there will

be no misunderstanding. The focusing point of my criticism unfortunately is the medical profession, and while a great deal could be said in the way of argumentation and criticism I will pass this chapter by with the citation of a few interesting examples.

(To be Continued)

MISCELLANEOUS

MUSKEGON BEACH — IDYLWILDE PINES.

By William F. Waugh, M. D.

Two publications especially attracted my attention: George William Curtis in one of his letters stated that the entire southern shore of Lake Erie had been taken up for summer residences by the wealthy citizens of Buffalo, Cleveland and other lake cities. Meanwhile the report of New York authorities on the summer resorts of that state failed to commend any of them as satisfactory in a sanitary sense. Such of the summer resorts about Chicago as I have visited presented similar objectionable features. It is now admitted that the autumnal epidemics of typhoid fevers are brought back from these places, by the people who sought health and rest in them, and found disease.

It seemed time that somebody took up the task of supplying a clean, sanitary resort, to which the city dweller could escape from his flat, giving the children a chance and their mother a rest.

The conditions desired were, a location on the shore of Lake Michigan, as it is cooler than an inland lake; trees for shade and fuel; accesibility; cheapness.

The class which needs it is intended to meet comprises those who have young families, men who wish to spend the week-ends with them, and to whom a round trip of about five dollars is suitable, as against fifteen dollars to the Northern Wisconsin lakes, and the cheap boats to Benton Harbor with their cheap excursionsists.

It is not the place for mothers with marriageable daughters to be marketed, or for society folk looking for chances of display. Here the tired mother may relax, secure that her brood is happy, gaining health and strength and that they can come to no harm.

Muskegon is a wealthy, clean and well-conducted town of about 32,000 inhabitants, far enough north to suit the hay-fever victim, and reached by rail and boats from Chicago in a few hours. Muskegon Beach is just far enough from the town to insure privacy, but not too far for mail and supplies. The cost of food is less than in Chicago; ditto as to laundry.

From Lake Michigan Park the walk down the beach is about two miles; by Lincoln Avenue half a mile less. We now have a good road graded and cindered.

The tract contains the finest pine grove remaining in this part of Michigan. There are no wild animals, snakes, tramps or diseases. Usually the mosquito is absent, there being no swampy land near by. Water is easily obtained by sinking a well to the lake level; the water is quite cold, soft and pure. Next spring we are to have water in our cottages on tap. The bathing is exceptionally good, the beach being sand almost as hard as a floor, and a triple bar offering security for those who may venture deeper than they intended. There is a profusion of blueberries, blackberries, June berries, wild strawberries, wintergreen, partridge berries, wild grapes, wild cherries, mushrooms, sassafras, and other natural products to keep the children

busy. The morning search of the beach for flotsam and jetsam has its attractions. The sunsets over the lake! The swaying of the lofty pines! The birds, squirrels, rabbits, grouse, that seem to know they are secure here, and become quite sociable.

Nature having endowed Muskegon Beach with the essentials of an ideal summer resort, measures have been taken to retain these advantages. The greatest problem of sanitation is the disposal of sewage. We know that many persons who have suffered from typhoid fever, amoebic dysentery, and possibly other infectious maladies, carry their germs about for unknown but prolonged periods, and discharge them from bowels or bladder. "Typhoid Mary" has served to bring this fact home to the minds of many. At Muskegon Beach the Dumsdin system has been adopted. The sewage is received into a barrel of water, protected from insects by a film of kerosene, and as liquefaction proceeds the surplus drains over into a second barrel. At the end of the season this is emptied, the contents being deposited near the shore,—drainage being toward the lake—or burned. Contamination of soil and through it of the well water, is impossible. The difficulty lies in the invincible faith of the public in the germicidal powers of the soil. At this place, however, we are fortunate that the eary residents are mostly of the educated class—ministers, physicians, lawyers, etc., who have not needed much argument. The result may be seen in the purity of the water after four years' residence. Tests made this summer show phenomenal purity.

Garbage is either burned or buried beyond the reach of flies.

There are now at Idylwilde Pines twenty-one cottages, whose cost has not been higher than $500 and as low as $147. Only two cost more than $300. About fifteen tents have accommodated part of the visitors. Thirty-two lots were bought this summer by visitors, and thirty-five cottages have been planned for next spring's building. The project may therefore be said to be fairly established and out of the formative period.

This has been the most successful season of the four since its establishment. There has been neither accident nor sickness. One child who ventured beyond his depth was in danger but quickly rescued. This led to the enrollment of seven youths as life-guards; who were drilled and placed in charge of the beach, with instructions to be big brothers to the girls and the smaller children, teach them to swim, and take charge generally.

Lake Muskegon is full of fish, but nobody semed to have time for angling. What did they do?

Well, nearly everybody had a place to see to, to build, add to conveniences, clear brush, cut away dead trees or limbs, gather stovewood, berries, prizes cast up on the shore, flowers, mushrooms, ferns; enjoy the fine bathing, swing in the hammock under the trees, dance, really we never seemed to have time for all we had to do. Once a week we had a dance but it grew to three times a week, besides a tri-weekly dancing school. Then there was a delightful masquerade, a woodland entertainment where a number did 'stunts,' roasts of marshmallows, green corn, redhots, and potatoes, in the evenings at the driftwood fires on the beach, where everybody congregated; and finally a barbecue where a sheep was roasted whole—and eaten to the last morsel. Thanks to the presence of a whole flock of very bright women and very pretty girls, there was not a dull day; and at the close of the season we unwillingly turned our steps cityward.

For next season we are actively devising a series of amusements, that are to cost little and take no more care

than we feel like giving them. For the secret of enjoying true rest is, not doing anything you do not feel like; and so, while we have nothing we must do, we are very busy people. We shall repeat our barbecue, this time probably roasting a pig; and possibly another sheep. We contemplate a woodland play, a gypsy camp, with a big kettle of bouilla-baise or an olla podrida; exhibition drill by the life-guards, and many other diversions are being discussed.

It is surely near paradise for the children; and as we become more and more a race of cave-dwellers, the necessity for such a place, where for the summer the kiddies may run and shout and eat and expand, becomes more pressing.

Doctor, does this read good to you; When you get tired of doping people, when the scalpel and the bistoury, the saw and the probe, those little jewels that delight our patients so much, get to be an old story, cut loose awhile and try for yourself the pleasures of a return to primitive ways and nature's remedies. Try that for one free summer, and you will never again waste that part of your year.

We talk a lot about preventive medicine—what better way of putting it into practice than aiding in building up such a summer outing camp as this? For my part I congratulate myself that as age creeps on I have still this means of making myself useful to my kind.

♣ ♣ ♣

Have you ever tried the scarlatina prophylactice bacterins? Streptococci are used for scarlet fever cases. Why not let us have your experience?

♣ ♣ ♣

Do not forget that the case of "sore throat" may turn out to be one of diphtheria. Be ready with antitoxin.

AMERICAN PROCTOLOGIC SOCIETY.

(Continued from Page 255 Sept Recorder)

Hyperplastic Tuberculosis of the Colon. By J. M. Frankenburger, M. D., of Kansas City, Mo.

The writer declared that this form of tuberculosis of the intestine differs from other forms of intestinal tuberculosis, inasmuch as it is amenable to operative interference. It is generally a local and primary lesion and is characterized by the formation of tumor masses composed of fibrous and tuberculous granulation tissue in the walls of the bowel. Primarily there is no involvement of the mucous membrane, but on account of the narrowing of the gut, the irritation caused by the passage of feces may produce ulceration.

Symptoms are slight, constipation and diarrhoea sometimes alternating. Later the symptoms are those of gradually increasig intestinal obstruction. Differential diagnosis is between sarcoma, carcinoma, syphilis, and chronic appendicitis with adhesions.

Treatment is purely surgical. If possible the enter growth should be removed, but failing in this a short circuiting operation should be performed to relieve the obstruction.

Two cases are reported with successful operations.

Pseudo-Intestinal Stasis and Real Intestinal Stasis, Demonstrated Roentgenologically. By Arthur F. Holding, M. D., of New York City, N. Y.

Attention is called to many anomalies of visceral position and progress of the bismuth meal that have been interpreted as pathologic, and which are really physiologic or anatomic anomalies and completely compatible with health, laying especially stress upon the fact that the ileum enters the caecum normally at an angle, and unless associated with proximal distension, a

diagnosis of Lane's kink is not justified.

He emphasized the point that delayed progress of the bismuth meal is not significant of obstruction unless it is more than six hours behind the normal schedule and associated with marked distension of the viscus proximal to the locus of obstruction. Proximal distension with obstruction to the bismuth column are two cardinal diagnostic points of real intestinal stasis. Intestinal obstructions due to tumors, is much easier to diagnose than intestinal stasis, because the defect in the bismuth shadow made by the tumor is more definite than that made by adhesions, veils, or membranes.

Local Treatment of Anal Fissure. By Jas. A. Duncan, M. D., of Toledo, Ohio.

The writer describes a treatment for anal fissure which he has employed successfully for the past thirteen years. The fissure is brought into view by separating the folds and the surface is lightly curetted, then thoroughly dried, and a drop of collodion applied. This takes only a moment or so. A recent ulceration requires but a single application. A sharp stinging pain lasting for only a few minutes is caused, and then the patient is left perfectly comfortable.

Some Unusual Forms of Sigmoidoscopy. By Ralph W. Jackson, M. D., of Fall River, Mass.

The diagnostic value of the sigmoidoscope has been the topic of much writing, and is increasingly appreciated by hospitals, but much less so by the profession and insufficiently in medical teaching. Explicit statements of its considerable therapeutic uses are not found in German, American or English literature. The instrument enhances the extent and accuracy of recto-sigmoidal therapeutics, and specifically it facilitates the use of certain other instruments, topical applications, the relief of high impaction, and the treatment of stricture and many other lesions. Serious trauma from the sigmoidoscope is more liable to happen than some authorities admit, as illustrated by three cases of intestinal perforation cited from the German. Two personal cases are detailed, where the patients were in serious condition from occlusion of the bowel, but were relieved and saved by sigmoidoscopy done with diagnostic intent only. Pelvic visceroptosis, hypermobility of the sigmoid and the fixed and open rectal ampulla beneath predispose to invaginations and angulations which are fairly frequent in mild and chronic form, and are potentially dangerous as a source of acute obstruction. Sigmoidoscopy, properly conducted, empties the pelvis by gravity (due to the position assumed) by intelligent introduction of the instrument and by the air pressure admitted through it, and therefore tends to undo such intestinal malpositions. The conclusion in the two cases related was unexpectedly relieved, and doubtless in this way. Greater prevalence in the use of the sigmoidoscope would bring to light a field for deliberate therapeutic use of the instrument along these lines.

"Crude and Careless Diagnostic Methods, and Results of Same, in Some Recto-Colonic Conditions," by Jno. L. Jelks, M. D., of Memphis, Tenn.

The author criticises the busy doctor and surgeon who too hastily yields to a conclusion and treats recto-colonic diseases without sufficient investigation to warrant or obtain a correct diagnosis.

Reference is made to cases operated on for appedicitis which disease may be an extension of an infection and inflammation originating in the rectum or colon.

Cases are cited to show the frequency and at all times the liability of mistaking a condition for an infection or ulceration of the colon, specific in character, when a coloptosis or pericolic

membranes, or both, were the true etiologic factors. Stress is laid on the importance of urinalysis, microscopic examinations and the X-Ray in recto-colonic cases.

A harder nodular calcareous degeneration of the outer zone of the mamma has been observed as a sequence of coloptosis and defective drainage. In another case, in which was found a cecum cradled in pericolic membranes, and a coloptosis, a duodenal ulcer was diagnosticated. In this case the urinalysis, the history and general toxic appearance of the patient, pointed to true etiology.

Case reports are given in which diarrhea was the dominant symptom, though impactions, pericolic membranes, and ptosis were the true etiology.

The author calls attention to his prior reference to, and work of establishing the importance of conserving the ilio-cecal valve; also to the syphonage of a ptosed colon after short circuiting operations, might be accomplished by a second anastomosis between the blind colon and the sigmoid or rectum below the first anastomosis.

Importance is claimed for a microscopic examination of the intestinal contents of patients who suffer from attacks of appendicitis and of the contents of the removed appendix; and the author insists that in the event that pathogenic amebae are found appendico-cecostomy should be performed instead of appendectomy.

The author refers to his observation of quite marked congestion of blood in the visceral vessels themselves in these cases of ptosis and defective intestinal drainage.

The author refers to the frequency with which he encounters cases of inoperable cancers of the rectum and intestines, the neglect of which is most often due to the fear of examiation of those suffering with symptoms in the regions referred to.

Reference is made to the operation of appendico-cecostomy as being practically free of danger to life. In his opinion this operation would save almost every life that is today caused by the ravages of amebic colitis.

Abscess Originating in a Pi lo-Nidal Sinus. By Louis J. Krouse, M. D., of Cincinnati, Ohio.

The writer states that a pilo-nidal sinus is a congenital defect due to a faulty development of the foetus. It is usually located in the median line over the coccyx or the sacrum. Inflammation of this sinus must be differentiated from necrosis affecting the sacrall or coccygeal bone; from abscess originating in the sebaceous gland of this region; and from true fistula-in-ano. The treatment consists in the complete obliteration of the walls of the sinus.

Abnormalities of the Colon, As Seen with the Roentgen Ray: Lantern Slide Demonstration. By W. I. LeFevre, M. D., of Cleveland, Ohio.

The entire alimentary tract can now be successfully examined with the X-ray, some parts more readily and successfully than others, according to the degree of satisfaction arranging themselves in the following order: Colon, Stomach, Oesophagus, Small Intestine. Two methods of examination are used. First, Roentgenoscopy, which is the examination with the fluoroscope. Second, Roentgenography, the making of X-ray plates. The Colon is also accessable from either end, that is it can be examined by following the bismuth meal through the stomach, or by giving an opaque enema of barium sulphate. In the former method the motor phenomena of the colon can be observed, in the latter the size, position and contour can be seen.

The action of atropin, adrenalin, pilocarpin and physostigmine as affect-

ing the action of the bowes is briefly discussed.

The normal colon is described in detail, with radiographs showing different types. Many vary from the "ideal" type and still are normal for that individual.

Abnormalties of the colon my be produced by congenital defects, disease or injury to the bowel proper, from pressure, constriction or relaxation of other organs in close proximity. Coloptosis, owing to its frequency and import is first discussed with radiographs showing these conditions. Other abnormalities consists of stenosis, malignant growths, Tutebcculosis, kinks, twisting, hernias, diverticulas and megacolon or Hirschprung's disease. All these conditions can be recognized by aid of the X-ray.

Some Problems before the American Proctologic Society. By J. A. MacMillan, of Detroit, Hiligan.

The writer states that: (1) during the past decade protology has come to include diseases of the colon, and that the extension is beneficial inasmuch as it encouages and provides for a better diagnosis and for a more thorough search after etiology. (2) The effort should be made by the American Practologic society to standardize some of well tried methods of treatment which have proven effective and reliable.

That on the other hand there are certain procedures in common use that are faulty and pernicious, and that it should be the aim of the Society to begin a campaign of education against these. (3) that in regard to rectal cancer he recommends that statistics from the members of the society be collecec annually, and utilized to ascertain the prevalence and location of the disease, together with the extent of surgical interference or non-interference, kind of operations, and subsequent results.

The writer recommends that a cancer committee be appointed to take charge of this work.

MEETING OF ALIENISTS AND NEUROLOGISTS OF UNITED STATES.

At the meeting of Alienists and Neurologists of the United States held in Chicago July 13-17, 1914, under the auspices of the Chicago Medical Society, a number of resolutions were passed, touching on topics that the general practitioner is particularly interested in, so I am taking this occasion to publish these resolutions for I know all the readers of the Recorder will be interested in what this branch of our profession are aiming to do.

At the Third Annual Meeting of Alienists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society for the purpose of discussing Mental Diseases in their various phases, July 17th, 1914.

The committee on "The Causative Forces of Mental Deficiency" reported the following resolutions, which were unanimously adopted:

"We feel it unwise at this time to make any recommendations in regard to constructive legislation owing to the lack of proper valuation of available data as to causes and sources of mental deficiency."

"We do, however, recommend and urge regulation of mental deficients and the furthering of investigations as to the causes and sources."

At the Third Annual Meeting of the Alienists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 13-17th, 1914.

The committee on Prevention of Insanity, reported the following resolu-

tions; which were unanimously adopted:

"Whereas, it is well recognized by alienists and neurologists the world over that certain major factors are the chief causes of physical conditions accompanied by mental derangement and deficiency, and

"Whereas, these major causes are largely, if not wholly, controllable and eradicable, and

"Whereas, these major causes are alcoholism, habit producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings and hereditary influence including the immigration of the physical and mental unfit.

"Therefore, Be it Resolved, First: That we recommend to the proper state authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted.

Second: That the sale of all habit inducing drugs be strictly regulated in all states of the Union.

Third: That municipal or state control of venereal diseases be established, with proper treatment for indigent patients, to the end that the spread of syphilis and gonorrhea be prevented.

Fourth: That, proper, special hospitals for the care and treatment of alcoholism and drug addictions be established.

Fifth: That municipal, state and national inspection of labor conditions be regularly maintained and child labor abolished.

Sixth: That no known defective dangerous to himself and to others, should be permitted to have unrestricted liberty.

Seventh: That adequate teaching of the principles of heredity and sex life be initiated and fostered in the home with the view to its introduction into the curricula of schools—above the grammar grades, this instruction to be given to the sexes separately.

Eighth: That the various states pass reasonable and universal marriage laws that will be reciprocal, in preventing the marriage of the physical and mental unfit.

Ninth: That a Psychopathic Laboratory be connected with the Criminal Courts, Common Schools, Railroads, Transportation Companies and Public Service Utilities, responsible for the actual safety of the general public should have their employees regularly examined as to their physical and mental fitness.

Tenth: That, inasmuch as state, county and city public health institutions should have as their superintendents, men of highest qualifications, who may devote their best efforts to their tasks, we recommend that all such positions be subject to civil service examinations.

Eleventh: That in addition to the above, we recommend a nation-wide campaign of education conducted through the public press, university and medical schools, boards of health, state, county and city boards of education, women's clubs and many other proper educational mediums, upon the true significance of the development—physical, mental and moral—of the individuals and the race and finally, we recommend that a committee be appointed to promote the enactment of the above resolutions.

At the Third Annual Meeting of the Alienists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 13-17th, 1914.

The committee on "Alcoholism as a Causative Factor of Insanity" reported the following resolutions, which were unanimously adopted:

"Whereas, In the opinion of the meeting of Alienists and Neurologists of the United States in convention assembled, it has been definitely established that alcohol when taken into the sys-

tem acts as a definite poison to the brain and other tissues; and

"Whereas, The effects of this poison are directly or indirectly responsible for a large proportion of the insane, epileptics, feeble-minded, and other forms of mental, moral and physical degeneracy; and

"Whereas, The laws of many states make alcohol freely available for drinking purposes; and therefore cater to the physical, mental and moral degradation of the people; and

"Whereas, Many hospitals for the Insane and other public institutions are now compelled to admit and care for a multitude of inebriates; and

"Whereas, Many states have already established separate colonies for the treatment and re-education of such inebriates, with great benefit to the individuals and the commonwealths.

Therefore, Be it resolved that we unqualifiedly, condemn the use of alcoholic beverages and recommend that the various state legislatures take steps to eliminate such use; and be it further

Resolved, That we recommend the general establishment by all states and territories of special colonies or hospials for the care of inebriates; and

Resolved, That organized medicine should initiate and carry on a systematic persistent propaganda for the educaio of the public regarding the deleterious effects of alcohol; and

Be it Further Resolved, That the medical profession should take the lead in securing adequate legislation to the ends herein specified.

At the Third Annual Meeting of the Alienists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 13-17th, 1914.

The committee on "Syphilis as a Causative Factor of Insanity," reported the following resolutions, which were unanimously adopted:

"Whereas, Syphilis is responsible for a large percentage of all insanity and mental deficiency.

Be It Resolved That:

First: Health Departments, (Municipal and State) should be equipped to make laboratory examinations for Venereal Diseases.

Second: All Hospitals for the Insane should be equipped to make laboratory examinations for Venereal Diseases.

Third: Hospitals and Dispensaries for the treatment of Venereal Diseases should be provided.

Fourth: Physicians should be compelled by law to report cases of Venereal Diseases, as is now done in other contagious diseases.

Fifth: Applications for marriage should be required to furnish health certificates.

Sixth: Lectures and Bulletins should be offered freely to the Public regarding Venereal Diseases.

Seventh: Newspapers should be requested to use their best efforts to educate the people concerning Venereal Diseases.

Eight: Sex Hygiene should be taught in the Public Schools, above grammar grades, to the sexes separately.

The proceedings of the Third Annual Meeting of Alienists and Neurologists of the U. S. held under the auspices of the Chiago Medical Society, July 13-17, 1914, will be published in one volume by the Illinois State Medical Journal. It will be in double column, the type and size of page the same as the Journal, and will contain from four to six hundred pages. This book will contain the papers read and their discussions, together with resolutions adopted. The subjects covered are, Acquired Insanity, Epilepsy, Mental Defectives, Alcoholism, Abderhalden Test, Syphilis, etc.

The subjects of special interest are:

First: The Abderhalden Tests (Especially in Dementia Praecox) which embraces the technic for the preparation of the substrates mixing of materials in the test tubes, and the interpretation of the reaction. This will comprise one of the most complete Symposium on the Abderhalden Test, so far, printed in this country.

Second: Syphilis. The diagnosis of early Syphilis by the Dark Field Illuminator. The technic for obtaining and mounting the specimen for the Dark Field examination. The technic for staining specimens obtained from local lesions and mucous patches, and the method for preparing and staining tissues for sections, for microscopical examination.

The Wasserman Test: The technic for preparing materials, the method for mixing the same in test tubes, and interpretation of the reaction.

Third: The treatment of early and late Syphilis is up to date, and embraces the technic for mixing and the method of administering intravenously Salvarsan and Neosalvarsan, also the technic and method for Intra-Spinal administation of Neosalvarsan and Neosalvarsanized serum in Locomotor Ataxia and Paresis.

The proceedings will be published and ready for distribution by October or November, 1914. As only a limited number is left unsubscribed for, those wishing the publication will please send their subscription at once, as there will not be a second edition. The price of book is $2.00. Send subscription to the Editor of the Illinois State Medical Journal, Dr. Clyde D. Pence, 3338 Ogden Avenue, Chicago, Ill.

♣ ♣ ♣

Ten drops of a 1 to 1000 adrenalin solution repeated once cured an intractable case of hiccough.

SPONDYLOTHERAPY.

The American Association for Study of Spondylotherapy was held ot the Hotel La Salle at Chicago, September 21-24. This convention is fast becoming one of the recognized medical Societies the attendance upon which is becoming necessary that medical men should learn the rapid development in this special field of Nerve or Reflex therapeutics. It is particularly gratifying this year, the large number of medical men who were present from all over the United States as well as the high character of these men in spite of the fact that all organizations of a national character are sparsely attended by reason of the uncertainty of the times.

It is indeed refreshing to attend a convention like this one, composed of medical men but which causes such a splendid mingling of all medical beliefs in common pursuit of new modern helpful methods.

It is the only convention in which interest demands practically a continuous session. No sooner does the session proper adjourn than those interested join together and discuss between sessions and until late in the night, the events and new things found in this line of their practice. In most medical conventions the different sections are poorly attended, men go for relaxation and amusement rather than to hear the re-hash of old ideas. This is a convention "that's different" and hence helpful in a financial way.

At this convention were revealed the possibility of diagnosing Cancer, Syphilis and Tuberculosis and of outlining their exact pathological diagnosis. There was revealed anew the possibility of scientific use of the enormous energy developed within the human body to influence disease from an electronic point of view, and as a new method of diagnosis, a subject just beginning to bud for scientific development.

The possibility of studyig the human body clinically and diagnosing with as much scientific precision as may be done in the Labortory is a tremendous advance of scientific import to bedside practitioners.

The possibility of cure of Aneurisms and Goiters and other so-called incurable diseases was again emphasized by reports from many present.

The possibility of using special spinal and nerve centers other than by manipulation as centers for treating many diseases both organ and peripheral is just beginning and awaits but the co-operation of that vast body of medical men to develop new centers and is limited only by the limit of human instrumental inventions and human possibilities. The desire was especially emphasized that medical men everywhere take up the study of these Reflexes so the proper use and pursuit of these methods would make for the elimination of the narrow ignorant exploitations under the guise of professionalism as practiced by narrow conceivers today to the physical detriment of a trusting public.

When medical men everywhere learn the real object of Spondylotherapy work is in the interest of medical men, is of highest scientific mport, in fact making for him some of the greatest advances in clinical methods of exact diagnosis and cure, he will then cease to wonder at the profound interest displayed in class and convention and see why our eminent men often come to scoff and return enthusiastic followers of Reflex possibilities.

The convention welcomes to membership, quality rather than quantity. It is hoped the transactions soon to be issued will prove a distinct medical advace.

Spondylotherapy is not Osteopathy nor any form of "spine pummeling" nor a "cult" but a study by scientific medical men of means of influencing the various body reflexes for diagnosis and curative purposes. It has already reached a plain of unlimited possibilities not possible of attainment by any narrow conceiver and of vast future import to the medical profession as an aid to diagnosis and cure of hidden and common diseases.

MEDICAL CO-OPERATION.

We should read the "handwriting on the wall." The night of competition is passing, and the day of co-operation is dawning. This is true in every avenue of life—religion, education and commerce. Medicine should not lag hind in her preparation to meet new conditions. No longer can the country doctor work by himself. The demands of modern medical practice make close co-operation an absolute necessity; else we will be left behind in the march of events.

The great unsolved problem of efficient medical and surgical service for the middle classes, particularly in the country, remains to be solved. It cannot be solved by individuals. It must be solved by united effort.—The Bucks County Medical Monthly (Pa.)

For the protection of your patient and justice to yourself do not fail to write for "Grays" as follows: ℞ Gray's Glycerine Tonic Comp. (Purdue Frederick Co.) One bottle—6 oz. This word of warning becomes necessary because of the reports physicians are constantly sending in to the effect that their prescriptions have been filled with inferior imitations or worthless substitutes. By specifying an original package you insure your results. The Purdue Frederick Co., 135 Christopher St., New York.

The Wisconsin Medical Recorder

F. W. VAN KIRK, M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 OCTOBER, 1914 No. 10

On looking over my list of contributors I find that our readers are letting a few men do the work, that is you are letting a few energetic fellows do all the writing for your journal.

To me, a medical journal whose aim is to meet the demands of the general practician, should be one in which all the subscribers feel that they should take an active interest in its welfare. Any man who has ever written an article knows the immense amount of benefit he receives from writing the same—and I firmly believe that if the readers of The Recorder would get busy and write a paper on some topic that particularly interests them or report a case that is of especial interest, that it would not only prove of great benefit to the writer but would be greatly appreciated by all our readers.

Every Medical Journal depends upon those interested in it to make it a success and the only way we can tell that people are interested is by the way they support the same—not only in a finanial way but by boosting the Journal in every way possible and one of the best ways to boost and to show your interest is to write something once in a while for that shows the other subscribers in the most effective way that you are interested, for we generally write for that Journal that we like the best.

It has been the aim of The Recorder in the past to publish such articles that we think will interest the greatest majority of our readers. There is hardly a medial journal that we pick up that one can be interested in all the articles it contains, so once in a while you will probably find some article that does not interest you in the Recorder but from the number of encouraging letters we receive we feel sure that our readers are enjoying the different topics discussed. The co-operation of the Recorder friends is responsible for its success in the past and we trust that this same spirit will continue among our supporters and that we will be able by this support and cooperation to give you a better journal as the months go by.

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In 1906, John L. Bauer, a glassblower employed by Henry Green, a pioneer X-ray tube manufacturer of Hartford, died of cancer. On March 4, 1914, Mr. Green died of cancer of the liver. Cancer apparently due to exposure to X-rays and radium emanations, etc., is fairly frequent. Howevet, 6-9 per cent of all deaths at ages over 45, occur from cancer, so that it is wise to study statistic carefully before reaching a concluion And it is equally wise to be careful in the use of these emanations till the statistics are accurately compiled.

ABSTRACTS

FLIES AS CARRIERS OF DISEASE.

"The part that insects, and especially the two-winged insects or Diptera, play in the transmission of disease," says The Journal of the American Medical Association for Novmber 7, "has given a profound impulse to the study of the methods and mechanisms by which the micro-organisms are conveyed from one diseased subject to another. More has been done in the study of disease-carrying insects, their habits in intimate anatomy, during the past twenty years, than in all the years preceding. The agency of mosquitoes in yellow fever and malaria, and the possible relations of the black-fly to pellagra, of the moth-fly, Phletotomus, to verruga, of the stable-fly to infantile paralysis, of the tsetse flies to sleeping sickness and various diseases of the dometic animals are among the most astonishing and far-reaching discoveries of biologic and medical science of the past quarter of a century.

"Of all the groups of blood-sucking flies that molest man only the minute Ceratopagon midges or punkies have so far not been accused of criminality. And it may be confidently believed that ere long even these little pests will be arraigned for high misdemeanors. Fortunately, the blood-sucking horse-flies, the only other two-winged flies that have piercing proboscides, do not often molest man, but that will not absolve them from all suspicion.

"Of the blood-sucking Muscidae, the common stable-fly, the horse-fly and the various tsetse flies of the Far East are the only ones that have achievd much popular notoriety; the first has been accused, probably rightfully, as the conveyor of the minute germs of infantile paralysis; the last have been known for the past fifty years to be the cause of various diseases of domestic animals in Africa, and more recently of the sleeping sickness in man. One wonders that the relations between cause and effect that have been known for so long had not led earlier to the discovery of the tryansomes; but the student of "bugs" was then looked on by the generality of men in a sort of contempt."

CARBON DIOXID IN AIR.

"The air, under the usual conditions, contains about 4 parts of carbon dioxid per ten thousand parts (0.04 per cent.) and the 'standard' of desired purity for the air of dwellings was long placed as low as 6 parts per ten thousand. Experimentation indicates, however," says The Journal of the American Medical Association, "that it does not become harmful to man until the carbon dioxid accummulate to above 1 per cent., or nearly forty times its usual amount. The air in crowded rooms very rarely reaches 0.4 per cent., so that evidently a quantity of carbon dioxid far exceeding the highest hygienic limit which has hitherto been set up as a 'standard' can be breathed with impunity. Certain it is that the poisonous properties of this waste product of combustion has been greatly overestimated when the physiologic limits have been placed in trms of parts per ten thousand; though we may hesitate to accept the much higher concentrations of carbon dioxid at which a few individuals have lived in comfort under conditions of experiment, as a safe guide for formulating rules which shall apply to all persons and over long periods. Lee, a well known expert in matters of ventilation, has exhibited the mental attitude which ought always to characterize men of science by admitting that notwithstanding these recent changes in our ideas of the relation of oxygen and carbon dioxid to ventilation, he is not prepared to say

without reservation that the continued exposure of an individual day after day and week atfer week to even a moderately diminishd quantity of oxygn and a moderately increased quantity of carbon dioxid would be wholly without harm. The hygienist is led to this reservation not by any existing physiologic knowledge, but rather by the necessity of maintaining an open mind receptive to future possible discoveries.''

UTERINE BLEEDING.

The more important points of an instructive article on uterine bleeding by E. Novak, Baltimore (Journal A. M. A., Aug. 22, 1914), in which he reviews the relations of the ductless glands and the nervous system to uterine hemorrhage are given by him as follows: ''1. The proper basis for the study of uterine bleeding is the study of normal menstruation, along physilogic as well as anatomic lines. 2. The factors concerned in normal menstruaion are (a) an ultimate cause, residing in the ductless gland chain; (b) a nervous mechanism, essentially vasomotor in character; (c) the uterus, and especially the endometrium. 3. The causes of uterine bleeding may therefore be grouped as (a) fundamental, involving disturbances of the internal secretions; (b) nervous, exerting their effect mainly through the vasomotor nerves; (c) anatomic, in which structural changes are present in the uterus or other pelvic organs. 4. Most frequently the exciting cause of uterine hemorrhage is anatomic, the lesion being in the uterus, tubes, ovaries, blood vessels or even the blood itself. 5. In a not inconsiderable number of instances, bleeding is due to fundamental or nervous causes, especially at the two extremes of menstrual life, puberty and the menopause. 6. There is good reason to believe that much light will be thrown on the role of the fundamental causes, and perhaps even of the nervous causes, by clinical methods of study which are based on the relation known to exist between the ductless gland apparatus and the vegetative nerve system.''

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Comon Salt in Hemoptysis.—Mueller (Brauer's Beitr. zur Klin. der Tuerk., Bd. 28, 1913). Mueller treats hemoptysis by means of intravenous injections of hypertonic salt solutions. At first from 1 to 4 injections of a 10 per cent solution of sodium chloride are given, 5 c. cm. being injected each time. If this does not lead to a cessation of the hemorrhage, 5 c. cm. of a 15 per cent solution are used. The injections are given two or even three times daily. No ill effects were ever observed.

In 35 of the 50 cases so treated, the hemorrhage ceased at once. In 21 of these cases, the effect was permanent; in 14 cases, relapses occurred. In 5 of the 50 cases, no effect was observed. Moderate hemorrhages, especially in cases of fibroid phthisis, yielded much more readily to the treatment than larger ones and those from ulcerating lesions.

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The von Pirquet Test.—The von Pirquet skin-test for tuberculosis is declared by F. H. Smith (Charlotte Med. Jour., Feb., 1913, p. 85) to be entirely harmless. The local complaint is of a trivial character, while no general reaction has ever been provoked by it; also, it is simple, inexpensive, and can be made by any physician. Out of 42 cases reported in which the reaction was sought, there were 16.66 per cent demonstrable cases of tuberculosis in which the reaction was not obtained. On the whole, Dr. Smith states that the von Pirquet reaction has been helpful to him in 76 per cent, and confusing in 24.

THE DOCTOR'S LIBRARY

On Dreams. By Prof. Dr. Sigm. Freud. Translated by M. D. Eder, with an introduction by W. Leslie MacKenzie, M. D., L. L. D., New York. Rebman Company. 1914. Cloth, $1.00.

This is a very interesting little work which gives a plain idea of Prof. Freud's interpretation of dreams. A subject which the author has said "is the royal road to a knowledge of the part the unconscious plays in the mental life." It contains about 140 pages and is bound in cloth. It is well worth the price.

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Ambidexterity and Mental Culture. By H. MacNaughton-Jones, M. D., Etc., New York. Rebman Company. 1914. Cloth. 75 cents.

A very complete review of the literature on the subject and the opinions of many authorities. As a digest or resume of the mass of evidence and information on the subject of ambidexterity it will prove useful. It is well worth the price to every practitioner, as well as layman who is interested in education and mental culture. It is well illustrated and contains 102 pages.

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Local Anesthesia. By Dr. Arthur Schlesinger. Translated by F. S. Arnold, B. A., M. B. Illustrated. New York. Rebman Company. 1914. Cloth, $1.50.

This is an important contribution to medical literature. It covers all phases of the subject. It is full and complete without unnecessary padding. The domineering idea of the author seems to have been to give a clear, practical, explanation of the technique so that the reader could grasp the theory and be prepared to do the work. It is a little manual that should be in the library of every physician whether doing general practice or specializing. It contains 211 pags; is bound in cloth, and is worth vastly more than the price.

♣ ♣ ♣

Dodge City the Cowboy Capital and the Great Southwest In the days of the Wild Indian, the Buffalo, the Cowboy and the Bad Man. By Robert M. Wright. Dodge City, Kansas. Published by the author. 1914. Cloth. $1.70.

Who has not heard of Dodge City? For years in its palmy days it was heralded all over the land as the most wicked city in America. It is still used as a standard for all things bad. With all that has been said about the "Cowboy Capital" no true account of conditions as they were in the early days was accessible until the appearance of this book by Wright. The author was especially well qualified to write a history of the wicked city of the plains since he had lived on the frontier for many years previous to the founding of the city and lived in the city from its opening to the present time. He has all the experience gleaned as a plainsman, explorer, scout, trader and as mayor of the town. It is a most interesting narartive of early days, as well as a very valuable contribution to western history.

The book is of interest to medical men in showing the conditions under which the pioneer doctor was compelled to practice. It contains a portrait of Dr. McCarty, one of the old timers and mentions Dr. Crumbine, whose home is in Dodge, and who has won a national reputation in our ranks by his wonderful work as secretary

of the Kansas State Board of Health. Some idea of conditions in the "Cowboy Capital" may be gleaned from the following account of the birth of the first child born there:

"I remember well the first child born in Dodge. Early in the morning a young doctor came into the only drug store in Dodge, with a look of thorough disgust on his countenance, saying, "My God! I did something last night that I never thought it possible to fall to my lot, and I am so ashamed that I will never practice in Dodge again. I delivered an illigitimate child from a notorious woman, in a house of prostitution." The druggist and I both laughed at him and told him that he must not think of quitting the profession for such a little thing as that."

Altogether this is a very interesting book. It contains 344 pages, is well illustrated and contains a very beautiful colored plate of an Indian hunting a buffalo. Buy it Doctor, it is worth while.

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ORIFICIAL SURGERY, its Philosophy, Application and Technique. Edited by B. E. Dawson, M. D. Authorized by the American Association of Orificial Surgeons. Cloth, pp. 655, Newark, N. J. The Physicians Drug News Co. 1914. $5.00.

When we speak of a book on surgery the mind paints a picture of a work containing many illustrations covering the minor or major operations for the repair of tissue or the removal of pathological obstructions. It must then be something out of the ordinary when we find a book that has but few illustrations, and which teaches that the object of surgery is not altogether to repair or remove parts, but that in many instances the more important thing is to so properly stimulate, adjust and remove obstructions that the nervous system may properly functionate and the body heal itself.

When the light of a new era dawned upon Dr. E. H. Pratt he saw that the sympathetic nervous system was to blame for much of the suffering that man is heir to, he gave to the world a great philosophy. The philosophy of orificial surgery. The name of Pratt will go down in history as one of the benefactors of mankind. The science he has given his life to disseminate has in it the power to relieve more pain and sorrow from the world than any recent discovery.

The physician who is not familiar with the work of Dr. Pratt is to be pitied rather than condemned. He is losing one of the greatest helps to his stock in trade that he could possess.

This book contains a large amount of material selected with care and edited by a man who is thoroughly conversant with the principles of the orificial philosophy.

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Long writes (Charlotte Medical Journ., March, 1913) on the use of quinine in hemoglobinuric fever. He believes that the drug should be given in large doses or not at all, and, what is more important, that it should be given early or not at all. When it is given, every effort should be made to tide the patient over the crisis which is bound to follow. "To weak or debilitated patients, or to those who are seen late, quinine is only a weapon with which to cut their own throats." The best method of treatment, however, is eliminative. If the poisonous products are removed by diuresis, purgation, and diaphoresis—of important ance in the order named—nature will destroy the invaders and leave the patient enough blood elements to meet his immediate needs and to preserve life in a good per centage of cases.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVII NOVEMBER, 1914 No 11.

INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 270 October Recorder)

IRITIS.

The bowels should be kept open with saline laxative and by blue mass and soda or Calomel and Irisoid every other night, with the sulphocarbolates to insure intestinal cleanliness. Locally and internally, Atropine to insure dilatation of pupil. As counterirritant either a catharidal blister or a rubefacient ointment applied back of the ear. For pain, the Hyoscine, Morphine and Cactoid combination. The alteratives are frequently, practically always indicated and the following may be employed: Calcium sulphide, iodized Lime, or iodized Lime gr. 1; Mercuric iodide gr. 1-64; Strychnine arsenate gr. 1-128; Phytolaccoid gr. 1-6; Nuclein solution m 2. If there is anemia, the arsenates of Iron, Quinine and Strychnine and Strychnine with Nuclein. If of rheumatic origin, Sodium salicylate in full dosage, or Liquor Arsenii Comp. (Barclay). If of syphilitic origin, those remedies mentioned under the consideration of that disease will meet the indications.

ITCH (SCABES).

Sulphur, in one form or another, is a specific parasiticide in this condition. To reach the parasite in the burrow, saturate with Calcium sulphide and give the following laxative t. i. d.: washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Carminatives, q. s. A hot, sulphur bath is indicated, the patient to be well scrubbed with a sand soap. Following bath, apply either a sulphur ointment or solution. The following ointment is suggested: Betanaphthol drams 2; Sulphur lotion drams 2; benzoinated Lard to make ozs. 2. The treatment should be pushed in every instance.

ITCHING (PRURITIS).

Look for primary cause in all cases. Suspect faulty elimination by skin, kidneys and intestines and examine urine to determine whether or not autotoxemia exists. Look for albumin, as nephritis may be the cause. Clear the bowels, every other night, with Calomel and Irisoid, followed by morning saline carrying Lithium Carbonate and Colchicine. If there is marked urinary acidity, or if the acidity is far below normal, showing retained toxins, give the Sodium and Xanthoxyloid compound before the noon and evening meals and at bedtime, with the sulphocarbolates every three or four hours during the day. Regulate the diet. Salt or Epsom-salt sponge baths will at times relieve the itching. If due to senility, small doses of Pilocarpine may relieve. To overcome dermal sensibility, Cannaboid, with the arsenates of Iron, Quinine and Strychnine. Locally, one of the antipruritic ointments. Hot applications to affected areas may give relief. In chronic cases the Staphylo-

Bacterin is frequently indicated, with Coli-Bacterin in those occurring about the vulva or anus.

KELOID.

Other than in those tissues which give support and must not be destroyed, Thiosinamine solution, exhibited hypodermically, usually gives good results. The following solution is suggested as useful in this connection: Thiosinamine grs. 75; Antipyrine gr. 37½; Glycero-aqueous solution q. s. to make oz. 1. A 20 per cent solution of Creosote in sterilized oil has been also used to good effect. The alteratives are indicated, among them being iodized Lime, arsenous iodide or Liquor Arsenii Comp. ((Barclay), the latter in ascending dosage.

KERATITIS.

Look for the cause, which may be malarial, syphilitic or rheumatic. Treat the underlying cause. Locally, protect the eyes, apply heat and instill Atropine, ½ gr. to the dram. With subsidence of acute symptoms, apply a weak yellow oxide of mercury ointment or finely powdered Calomel to the conjunctiva, with gentle massage of the eye. As alteratives, which are invariably useful, iodized Lime or arsenous iodide, meet the indications. In the early stages, to control fever and equalize the circulation, Aconitine. Promote elimination, Brucine, Irisoid and Boldine before meals. The bowel should be kept active at all times. As a tonic, the arsenates of Iron, Quinine and Strychnine with Nuclein. If of malarial form, Quinine ferrocyanide, or one of the following: Strychnine arsenate gr. 1-250; Quinine ferrocyanide gr. 1-6; Capsicum oleoresin gr. 1-64; or, Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hydrobromide gr. 1-3000. Iron, in one form or another, for anemia. To secure absorption of opacities, Thiosinamine solution by injection. In obstinate cases, an autogenous bacterin may be effective.

LARYNGITIS, ACUTE.

Clear out bowel with Calomel and Podophyllin, followed by saline. To control quickly, Aconitine, Hyoscyamine and Strychnine with iodized Lime in full dose, pushed to full effect. For local relief, a mentholated gargle. The following may give quick results and are frequently indicated; iodized Lime gr. 1; Mercuric iodide gr. 1-64; Strychnine arsenate gr. 1-128; Phytolaccoid gr. 1-6; Nuclein solution m 2; or, Aconitine hydrobromide gr. 1-3000; Bryonin gr. 1-500; Atropine sulphate gr. 1-1500; Mercuric iodide gr. 1-100; Saccahrin and aromatics, q. s. To control exudation, Calcium sulphide. Hot compresses to throat, externally, with inhalations of medicated steam, may give relief. As a tonic to the mucosa, Eupurpoid, and Collinsonoid as a diuretic and alterative. As an alterative and absorbent in the chronic form, iodized Lime. In tubercular laryngitis a gargle of either drop 1 of 40 per cent formaldehyde solution to the ounce of water, or a 30 per cent solution of Lactic acid. To control fever, Aconitine hydrobromide gr. 1-800; Digitalin gr. 1-64; Strychnine arsenate gr. 1-128. As systemic antiseptics, Guaiacol carbonate or, Nuclein solution m 10; Guaiacol gr. 1; iodized Lime gr. ½. The latter also acts as an alterative. As sprays to the throat, a solution of the sulphocarbolates, or Camphor grs. 20; Menthol grs. 20; Liquid petrolatum q. s. to make oz. 1. Both as a relief in the acute form and as immunizing agents, the Pneumo-Combined-Bacterin and Combined-Bacterin (Van Cott), have their indications.

LEUKOCYTHEMIA (LEUKEMIA).

Examination of blood is the best direction to treatment. Prognosis usually bad, especially so if there are megaloblasts present. The tonics and hematinics are the indications, with

those remedies which serve to contract the capilaries and spleen. Among the first mentioned are the arsenates of Iron, Quinine and Strychnine with Nuclein, Nuclein and Neuro-lecithin, Strychnine, and Digitalin or Cactoid to support the heart. Liquid Arsenii Comp. (Barclay) is indicated as an alterative and blood builder. Hypodermic administration of Iron cacodylate is undoubtedly an indication. Berberine to contract the capillaries and spleen, with Ergotoid, for like action are frequently indicated. Benzole has recently been employed in this condition, with reports of success. The X-Ray has given results in some cases.

LICHEN, SIMPLE.

Elimination should be stimulated. Calomel and Irisoid, in small dosage, every third night, with morning saline, these to be followed by either the sulphocarbolates of Bacillus Lactis Bulgaricus to render bowels clean. Arsenout sulphide or the arsenates of Iron, Quinine and Strychnine as tonic alteratives. Locally, antiseptic applications. In infants, locally glycerinated solution of boric acid, with washed Sulphur gr. 1-32; Strychnine arsenate gr. 1-128; Podophyllin gr. 1-64; Collinsonoid gr. 1-128; Berberine hydrochloride gr. 1-128. As a systemic antiseptic, Calcium sulphide. In urticatus, first cleanse the surface, then apply benzoinated or ichthyoloid colodion to lesions. Clear out bowels with blue mass and soda with Irisoid at night, followed by morning saline. Internally to increase waste and elimination thereof and as a systemic antiseptic and antisupurant, alnuoid gr. ½ to 1 with Echinacoid gr. ½ to 1,t. i. d. In the scrofulou form, iodized Lime gr. 1-3; Phytolaccoid gr. 1-3; Stillingoid gr. 1-6; Arsenous iodide gr. 1-64; Nuclein solution m 4. As an alterative and absorbent, the iodides. For itching, if troublesome, Camphor grs. 20; Menthol grs. 20; Petrolatum, liquid q. s. to make oz. 1. An antiseptic dusting powder is useful as a protective.

LUMBAGO.

Care should be taken to see that diagnosis of lumbago is correct, prior to institution of treatment, as other conditions are similar in their symptoms. In the vast majority of cases of true lumbago it will be found that an acidemia exists, due to absorption of toxins from the bowel. Look for high urinary acidity and indicanuria. The initial indication, as in all toxemias, is for a thorough clearing of the bowel in the usual manner, following with the sulphocarbolates to insure subsequent cleanliness and inhibition of toxin producing organisms. Blue mass and soda, third night with morning salines. to warrant a clear bowel at all times. As an alkaline remedy, Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500, with aromatics q. s. every three hours and as a corrective, Salicylic acid gr. 1; iodized Lime gr. 1-3; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s. To control pain: if severe, the Hyoscine, Morphine and Cactoir combination, one or two doses, hypodermically; if pain is worse on motion, Macrotoid or Bryonin; if pain is relieved by motion, Rhusoid; either with Colchicine. The following have their indications: to correct and overcome acidity, the Sodium and Xanthoxyloid combination or Lithium benzoate; the following anti-rheumatic combinations, Aconitine hydrobromide gr. 1-800; Colchicine gr. 1-128; Strychnine sulphate gr. 1-128; Macrotoid gr. 1-6; or, Macrotoid gr. 1-30; Bryonin gr. 1-60; Colchicine gr. 1-1000; Rhusoid gr. 1-250; Strychnine arsenate gr. 1-250: or, Sodium salicylate grs. 2; Veratrine hydrochloride gr. 1-128; Colchicine gr. 1-128; and Sodium salicylate. Locally as counterirritants, Guaiacol grs. 40; Menthol grs. 3; Methyl salicylate grs.

40; Lanum and Petrolatum q. s. to make oz. 1; or, Oil of Turpentine m 8; Oil of Cloves m 10; Oil of Mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Menthol grs. 16; Ointment base to make oz. 1, the former to be followed by hot, Epsom-salt compresses.

LUPUS.

The indications are for the alteratives, pushed in full, or large dosage to full effect, also for those agents which will tend to restore the skin to normal in condition. As alteratives, the following: Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4; with iodized Lime in massive doses to be alternated every two weeks with the arsenates if Iron, Quinine and Strychnine with Nuclein, given in conjunction with the dessicated thyroids. Liquor Arsenii Comp. (Barclay) is also indicated as an alterative. To restore the skin to normal, Thiosinamine, hypodermically, or one dram of salicylic acid in one ounce of Ichthammon, or Guaiacol and Glycerine, equal parts, the two latter locally.

LYMPHANGITIS.

Elimination, with stimulation of metabolism, is indicated, as are systemic tonics, antiseptics and alteratives. To act as antiseptics, increase vitality and promote elimination, Calcium sulphide and Nuclein, alternated with Irisoid and Phytolaccoid. As general tonics, the arsenates of Iron, Quinine and Strychnine with Nuclein, Brucine, Iron iodide, Calcium lactophosphate, or the phosphates of Iron, Calcium, Potassium and Magnesium, of each gr. 1-12, with Nuclein solution m 4. As an alterative, Mercuric iodide gr. 1-30; Ferrous iodide gr. 1-10; Arsenous iodide gr. 1-40. Locally, an ointment as follows: Dried Alum grs. 5; Ichthyol grs. 10; Phenol grs. 5; Bacilicon ointment q. s. to make oz. 1, to which Ichthammon is added. Later, as antituberculosis measure, the following: Strychnine arsenate gr. 1-64; Iodoform gr. 1-6; Calcium lactophosphate gr. 1-6; Nuclein solution m 5: or Nuclein solution m 10; Guaiacol carbonate gr. 1; iodized Lime gr. ½. The bacterins have their uses, those indicated being the Strepto-Bacterin, Pneumo-Bacterin, or others, as shown by bacteriologic test. In many cases terins are preceded by large doses of better results are obtained if the bacterins are preceded by large doses of Antistreptococcus serum.

MALARIA (SEE REMITTENT FEVER).

The bowels should be cleared, twice a week with either Podophyllin gr. 1-6; Leptandroid gr. 1-6; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-64; Irisoid gr. 1-6; Bilein gr. ⅛: or Podophyllin gr. ¼; Leptandroid gr. ½; Irisoid gr. ¼; Nux vomica, extract gr. 1-16; Capsicum, powdered gr. 1-3; or, Calomel gr. 1-6; Podophyllin gr. 1-6; Bilein gr. ⅛; Strychnine arsenate gr. 1-250; or, Calomel gr. 1-12; Podophyllin gr. 1-12; Bilein gr. 1-12; Strychnine arsenate gr. 1-500, either to be followed by morning saline. To combat infection, Calcium sulphide to saturation and as an antimalarial, Quinine ferrocyanide, gr. 1-32 to 1-6 frequently to full effect. If there is toxemia, the arsenates of Iron, Quinine and Strychnine, combined with Berberine, for the effect of the latter on the spleen three or four times a day. Nuclein in indicated to induce leucocytosis. The sulphocarbolates are indicated at all times, to keep the bowels clean. In intermittent fever, large doses, 20 grs. of Quinine may be necessary four or five hours prior to time of chill but if patient is kept saturated with the smaller doses of this drug, the larger doses seem hardly necessary in many instances. The following antimalarials have their indications: Strychnine arsenate gr. 1-250; Quinine arsenate gr.

1-128; Iron arsenate gr. 1-12; Quinine ferrocyanide gr. 1-6; Capsicum oleoresin gr. 1-64: or, Quinine sulphate grs. 2¼; Strychnine arsenate gr. 1-64; Methylene blue gr. ½; Macrotoid gr. 1-6; Atropine sulphate gr. 1-500; Podophyllin gr. 1-12; Capsicum oleoresin gr. 1-250; or, Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hyrobromide gr. 1-3000. As antipyretics, Populoid and Acetanilid. As an alterative and absorbent, Mercuric iodide. Irisoid to induce elimination, as a cathartic and alterative. Piperine to increase gastric tone. As a laxative, Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. 2-3; Aromatics q. s. Cactoid to support the heart. Always bear in mind to stimulate elimination thoroughly.

MANIA.

In the acute form, as a general rule, free purgation with Elaterin or Elaterium, or Croton Oil, or Aloin gr. 1-12; Podophyllin gr. 1-12; Croton Oil gr. 1-64; Atropine sulphate gr. 1-1000; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-250, followed by saline laxative to full effect, is the primary indication. It may be necessary to clear the stomach with a full emetic dose of Apomorphine, hypodermically. To sedate, the Hyoscine, Morphine and Cactoid compound hypodermically, followed by a modification thereof, per os, to maintain effect. If there is much congestion, Gelseminine hydrobromide or Veratrine, these especially when there is much delirium. To control sexual excitement, monobromated Camphor and Salicin. Among the sedatives which have their indications are Atropine valerate, Coniine, Avenin Scutellaroid, the bromides, chloral hydrat per rectum Solanine in full dose, and the following combinations: Hyoscyamine sulphate gr. 1-2000; monobromate Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajaput, with Oil of Anise and Menthol q. s.; or, Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. As a hypnotic, Sulphonmethane grs. 5; Scutellaroid gr. 1-3; Solanine hydrochloride gr. 1-32; Cactoid gr. 1-64. Cold should be applied to the head with counterirritants to the spine. Among the latter are Capsicum plaster, blisters or the following ointment: Oil of Turpentine m 8; Oil of Cloves m 10; Oil of Mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Centhol grs. 16; Ointment base q. s. to make oz. 1 It should be remembered that all remedies should be pushed to full effect in every instance.

MARASMUS.

Look to food supply, if in infants. Examine milk, if nursing. If bottle fed, modify food until improvement takes place. Barley water and milk with added cream and sugar, may be effective. The addition of Bacillus Lactis Bulgaricus to each feeding does well in many cases. Calcium lactophosphate to increase lime supply is indicated in some cases. To increase their values, add beef juice or defibrinated blood m 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution m 5; Glycerine, Sherry Wine and Alcohol q. s. to make oz. 1, to the food. In older children give a highly nutritious, mixed diet, with such agents as will act as correctives. Digestives combinations may be required after food, with Quassoid before, to stimulate the appetite. Tonics, as Brucine, Iron phosphate, Iron iodide or the phosphates of Iron, Calcium, Potassium and Magnesium of each 1-12 gr. with Nuclein solution m 4. If there is lime deficiency, as there frequently is, the Calcium salts are indicated.

MASTITIS, MAMMITIS, MASTODYNIA.

Eliminants and febrifuges, with measures to prevent suppuration are the indications. As eliminants, Iri-

soid and Phytolaccoid, in full dose, every four hours. To control temperature, allay congestion and equalize circulation, Aconitine and Hyoscyamine. Hot compresses locally, or a solution of Atropine, grs. 3 to the ounce this in the early stage. The atropine solution should be discontinued if physiologic effect, dilated pupils or dryness of the mouth, occurs. To prevent suppuration, Calcium sulphide to saturation, with Echinacoid added, if pus has appeared. To control pain, Hyoscyamine, or the Hyoscyamine, Morphine and Cactoid compound, if severe. As a local absorbent, Tincture iodine or iodine ointment, with iodized Lime internally for like effect. The breast should be supported and compressed in every instance. Incise and evacuate if pus appears and treat surgically. Staphylo-Bacterin, or Combined-Bacterin (Van Cott) indicated immediatey pus is suspected or known to be present.

MEASLES (RUBEOLA MORBILLI).

Isolate the patient in a warm, well ventilated room, darkened if eyes are involved. Clear bowels thoroughly with Calomel, Podophyllin and Irisoid, with subsequent saline laxative to effect. Then to combat infection, saturate with Calcium sulphide, give full, body sponge-bath with creolinated Epsom-salt solution and anoint entire body with an antiseptic oil. To control fever, Aconitine, in small repeated dose to equalization of the circulation. To allay nervousness and sedate the cough, Atropine and Codeine, or the following: Hyoscyamine sulphate gr. 1-2000; Monobromated camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajaput, with Oil of Anise and Menthol q. s. Either with Emetoid. In mild cases, good results have obtained from the use of Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hydrobromide gr. 1-3000. To bring out delayed eruption, Pilocarpine very cautiously. To induce leucocytosis, Nuclein solution in good dosage, every three to four hours at all times during the course of the disease. As a general systemic antiseptic, add Echinacoid to Calcium sulphide. In very high temperature (sthenic condition) instead of Aconitine alone, exhibit Aconitine hydrobromide gr. 1-3000; Digitalin gr. 1-250; Veratrine hydrochloride gr. 1-500. If a diuretic in indicated, Asparagin in either barley water, or with orange or lemon juice. If there is marked catarrhal condition with hyperpyrexia, Quinine ferrocyanide with Hyoscyamine, or Hyoscyamine sulphate gr. 1-2000; Monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajuput, with Oil of Anise and Menthol q. s. The bowels should be kept active with daily saline. Protect eyes and keep clean with antiseptic solution. The nose and mouth should be kept cleared and clean with application of mild, alkaline antiseptic solution, followed by an antiseptic oil spray. The following tonics are indicated, both during and subsequent to the disease. the arsenates of Iron, Quinine and Strychnine with Nuclein: Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32: or, the phosphates of Iron, Calcium, Potassium and Magnesium with Nuclein solution. The following may be used as laxatives: Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. 2-3; Aromatics q. s: or, Phenolphthalein gr. ½; Calomel gr. 1-6; Aromatics q. s. The treatment of rubella (German measles) is much the same as that outlined above. To all exposed, not otherwise immune, the antiseptic and eliminative treatment should be applied at once, as a prophylactic. The folowing to effect should be given to all children so exposed: Brucine hydrochloride gr. 1-128; Quinine ferrocyanide gr. 1-12; Calcium sulphide gr. 1-6; Aconitine hy-

drobromide gr. 1-3000. For respiratory complications and as a prophylactic against sequels, Pneumo-Bacterin is indicated

MELANCHOLIA.

Always determine the underlying cause and direct treatment accordingly. Among the tonics are the following: Neuro-lecithin gr. ¼; Nuclein solution m 10; or, Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128: or, Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4; with Strychnine valerate. Elimination by skin, kidneys and intestines should be stimulated, and the patient should have cheerful surroundings and take open air exercise. Avenin, for its general stimulant and tonic effect and for its sedative action on the productive organs, with Caffein, Brucine and Cactoid give good results in some cases. If due to the menopause, the following uterine nervine and sedative is indicated: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12. Look for and correct uterine displacements, ovarian congestion and other abnormalities of the female generative organs. Complete relief may follow dilatation of the anal sphincter.

MENIERE'S DISEASE.

Determine cause in all cases as a direction to treatment. Clear out the bowel in all instances. If due to malaria, the indication is for Quinine ferrocyanide. If there is rheumatism, the salicylates, or a saline laxative carrying Lithium carbonate and Colchicine, or Salicylic acid gr. 1; iodized Lime gr. 1-3; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s.: or, Salicylic acid gr. 1; iodized Lime gr 1-3; Stillingoid gr. 1-6; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Aromatics q. s. If the urinalysis shows symptoms of acidemia the Sodium and Xanthoxyloid compound should be pushed to full effect. Have ear, nose and eyes examined for abnormalities.

MENINGITIS, EPIDEMIC (CEREBROSPINAL FEVER).

Antimeningitis serum is proving almost a specific in this disease, having reduced the mortality from 70 to 90 per cent to 25 per cent. The serum should be given early, the amount being based upon the blood pressure, the injection being discontinued when the drop equals 20 m. m. The technic is well known and needs no description here. The bowels should be cleared with colonic flushing with a decinormal salt solution, with Elaterin or Elaterium and salines per os. To control the temperature, Gelseminine hydrobromide. As general systemic antiseptics, Calcium sulphide and Echinacoid. During the early stage the patient should be in a wet pack—a sheet saturated with a creolinized, Epsom-salt solution, and should be given a full dose of Pilocarpine, hypodermically, as soon as placed therein. He should be kept in the pack for two hours, unless free catharsis and diaphoresis have obtained earlier, then give alcohol rub and place in clean, cool bed. If serum is not at hand rub in one dram of colloidal Silver ointment, or inject, inravenously, ½ gr. of colloidal Silver, in 1-200 solution. If the condition is sthenic following Gelseminine, Aconitine and Veratrine, alternately or together, to sedate. In the asthein form, Gelseminine and Coniine hydrobromide give better results. As a heart tonic, digitalin. In the milder forms, replace Elaterin with blue mass and Soda, or Calomel and Podophyllin, followed by saine laxative. As antispasmodics, Gelseminine and Coniine. Wet pack and silver induction should be used, as in the severe types. In persistent vomi-

ting, nourish per rectum. The absorbents are indicated after caute stage has passed, among them being Mercuric iodide, Phytolaccoid and Irisoid, alternated with Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Iron arsenate gr. 1-32; Nuclein solution m 8; iodized Lime gr. 1, continued over a considerable period, but with lowered dose if there are symptoms of iodism. During convalescence, stimulate the appetite with Quasoid, Juglandoid and Myricoid before meals. As tonics and reconstructants the phosphates of Iron, Calcium, Potassium and Magnesium with Nuclein solution, or, Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32. Laxative compounds and digestants may be required. Neuro-lecithin to restore nerve tone is frequently indicated. The bromides have their obvious indications. Quinine ferrocyanide is useful, both as a tonic and antiperiodic, and Digipoten is indicated as a cardiac tonic.

MENORRHAGIA.

Determine the cause in all instances. To control pain, the Hyoscine, Morphine and Cactoid compound, one-half strength hypodermically of a modification thereof, per os. An antispasmodics, Cannaboid and Atropine valerate, with Gelseminine hydrobromide in full-blooded blonds. To abort, either of the following, t. i. d. for two weeks prior to period: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12: or, Aletroid gr. 1-12; Bryonin gr. 1-500; Caulophylloid gr. 1-6; Macrotoid gr. 1-6; Helonoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000. The arsenates of Iron, Quinine and Strychnine, or other Iron tonic may be useful. In anemia, sanguinarine or Quinine sulphate gr. 1; Iron sulphate gr. 1; Strychnine sulphate gr. 1-40; Arsenous acid gr. 1-30. If there is active hemorrhage and congestion, atropine to capillary flushing. The tonic vasoconstrictors, Hamameloid, Hydrastoid, Eupurpuroid or Senecoid, alone as indicated, or in combination with Aletroid, Ergotoid, Macrotoid or Caulophylloid. Gossypoid may replace Ergotoid. Suprarenal solution, to the os, may be required in stubborn cases. Calcium chloride is indicated to increase coagulability of blood, especially in stubborn cases. Local depletion at times gives satisfactory results. Frequent blood tests should be made, that the proper treatment may be carried out.

METRITIS.

To relieve the local congestion and inflammation, Aconitine gr. 1-2400 to 1-800 every 30 to 60 minutes with Hyoscyamine gr. 1-1000 with every second dose, until face flushes, then at longer intervals to maintain effect. If pain is severe, the Hyoscine, Morphine and Cactoid combination, with Lobeloid or Lobeline sulphate as relaxants and antispasmodics .Depletion by hot douches or by glycerinated suppositories, is useful. After the acute symptoms have subsided, the application of Thymol iodide in oil to the uterine canal, or gauze impregnated with the following: Dried alum grs. 5; Ichthyol grs. 10; Phnol grs. 5; Basicolon ointment q. s. to make oz. 1, introduced therein, with tampon backing. It may be necessary to use rectal suppositories carrying Atropine and Morphine to control pain and spasm, these to be followed by saline laxative, preferably one containing Lithium carbonate and Colchicine As tonics to the reproductive organs, Aletroid and Caulophylloid. The following are useful: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12, as a sedative and nervine; Aletroid gr. 1-12; Bryonin gr. 1-500; Caulophylloid gr. 1-6; Macrotoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000, as a uterine

tonic. In infected cases the Gonococcus Combined-Bacterin is usually indicated.

METRORRHAGIA.

To control hemorrhage, Atropine is the best weapon, either hypodermically or by the mouth. This should be used to effect capillary flushing. Hydrastinine should follow Atropine, to sustain effect. Gossypoid and Viburnoid, act well in some cases, through their direct tonic effect upon the uterus. Hematinics are indicated in many instances; the arsenates of Iron, Quinine and Strychnine, with or without Nuclein: Strychnine arsenate gr. 1-128; Iron arsenate gr. 1-32; Manganese phosphate gr. 1-32; Zinc phosphide gr. 1-32: or, Defibrinated blood m 30; Manganese peptonate gr. ½; Iron peptonate gr. 1; Nuclein solution m 5. Hot, astringent douches, with tamponage gives results in some cases, as do applications of antiseptics, of an astringent nature.

MUMPS (PAROTITIS).

Elimination is indicated from the outset. Isolate the patient and clear the bowels with Calomel, followed by a saline to effect. In order to equalize the circulation and stimuate dermal elimination, Aconitine and Pilocarpine, alternated, until temperature drops and skin is moist. Nuclein, as in all acute infections, is indicated to induce leucocytosis. As eliminants, after the temperature is under control, Phytolaccoid and Irisoid, gr. 1-3 each every three hours, with the following as an alterative and systemic antiseptic every four hours: Nuclein solution m 10; Guaiacol carbonate gr. 1; iodized Lime gr. ½. The bowels should be kept active with Calomel gr. 1-6; Irisoid gr. 1-6, one or two at night with morning saline. Locally the following ointment: Dried Alum grs. 5; Ichthyol grs. 10; Phenol grs. 5; Basicolon ointment q. s. to make oz. 1. Also locally and as a gargle in alkaline, antiseptic solution. As a spray to the nose and throat Camphor grs. 20; Menthol grs. 20; Liquid Petrolatum q. s. to make oz. 1. To relieve the severe pains during the early stage, hot compresses with inunction of Guaiacol grs 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1, afterward cover face and bandage snugly with cotton. After the acute stage is passed exhibit Strychnine arsenate gr. 1-64; Quinine arsenate gr. 1-32; Nuclein solution m 8; iodized Lime gr. 1.

(To be Continued)

The part played by the vaso-motor system in countless diseases is at last thoroughly recognized. As a consequence, circulatory disorders are among the most common functional ailments that the modern physician is called upon to correct. Various heart tonics and stimulants are usually employed, but the effect of these is rarely more than temporary. To re-establish a circulatory equilibrium that offers real and substantial relief from the distressing symptoms that call most insisently for treatment requires a systematic building up of the whole body. Experience has shown that no remedy at the command of the profession is more serviceable in this direction than Gray's Glycerine Tonic Comp.

For nearly 20 years this standard tonic has filled an important place in the armamentarium of the country's leading physicians. Its therapeutic efficiency in restoring systemic vitality and thus overcoming functional disorders of the vaso-motor or circulatory system is not the least of the qualities that account for its widespread use. The results, however, that can be accomplished in many cases of cardiac weakness have led many physicians to employ it almost as a routine remedy at the first sign of an embarrassed or flagging circulation.

SERMONETTES

FRANK P. DAVIS, M. D.
Enid, Okla.

CLEANLINESS.

Curious stories are sometimes written. Guy de Maupassant wrote of a beautiful and aristocratic lady who loved the smell of the stable. She had the odor made into a perfume. She was a member of a noble family, but married a riding master. There is something romantic about the aroma of a doctor who attends his own horses or automobile and who keeps his office perfumed with a mixed odor of stale drugs. However, all women are not like the one in the story, and to a majority of people these odors are offensive. The odor of gasoline and burning grease is not the most attractive perfume in the world. One may acquire an immunity to these offensive odors the same as the smoker does to his pipe and cigar, but there are other more sensitive souls who cannot. Cleanliness and freedom from offensive odors may not be next to Godliness, but it is an important subject to consider if you would succeed with your sensitive patients.

FRIENDSHIP AND RESPECT.

"Never mind a man's friendship; play for his respect", wrote George A. Murphy. There is a whole sermon in this to the man who is trying to make friends with a view of gaining practice. People do not call a physician on the strength of friendship alone. They call the man whom they respect and have faith in. I have attended patients with whom I was not on speaking terms. I gave them my best services, but when they recovered I did not accept them as friends. If a man respects you and has faith in your ability he will call you when he is ill.

BE PREPARED.

Lincoln said he would go ahead and prepare and perhaps his chance would come. It did come. He was prepared, and he made good. A physician should be prepared. An emergency case will come some day. Be sure you have a supply of needles, ligatures, cotton and bandages. Don't have to send out for supplies before you can care for your patient. These small items are often of more importance than the more pretentious instruments in your outfit.

A GOOD MIXER.

We often hear it said that some person is "a good mixer." I do not consider that to be a good mixer is any recommendation. The Caxton says, "The best mixer isn't always the best business man." It is well to add that he is not always the best doctor, either. He may attract a certain class of people to him, but as a rule he will not get the patrons that pay real money for services rendered. A smile and a glad hand will not clothe the baby or pay the drug bill. When the rent comes around it is the gruff old farmer that you look too for the wherewithal, and not the bully good fellow that tells what a good mixer you are.

DIGESTION.

"What doth it profit a man if he gain the whole world and lose his digestion?", asks Victor Robinson in his Essay on Hasheesh. Which reminds me that about the only persons I have ever found who were suffering with indigestion were the ones who had struck off work so as to give their entire time to nursing their stomachs. I have never met a cowboy who rode the range twenty hours a day and lived on fried bacon and hard tack that complained about his digestion. It seems remarkable that a frying pan that has dangled from a Mexican saddle all day through the gritty sands does not become so "unsanitary" that it would ruin the digestion of the cow puncher that fries his bacon in it and then "sops" up the grease on his bread. It is often hard for me to reconcile the ultra scientific statements of

our learned men with the cold hard facts of life on the range.

THE CAUSE OF APPENDICITIS.

Since the Canadian .Government prohibits the serum treatment of hogs for the cure of hog cholera, and we have found that it really does not cure or prevent the disease, why not "come to the conclusion" that eating meat from hogs that have been inoculated with hog cholera serum is the cause of appendicitis? It is about as good a guess as any I have heard. I believe I will claim this as original. This is just an advance report. The scientists in my private laboratory will investigate further.

IGNORANCE OF THE LAW.

I have just recovered from an attempt to land the nomination for a state office in the Oklahoma primary. I had a most interesting (to me) platform. There is one thing that I had in that platform that I want you to think about. I advocate teaching Statutory Law in our public schools. Every two years the legislature meets and enacts a lot of new laws and you and I never know anything about them until we happen to violate one and are hauled into court. The most absurd statement I have ever heard is that "Ignornance of the law excuses no one" when he has no chance to know anyhing about it unless he pays a lawyer or buys the statutes and reads up. An outline of all state laws should be taught in the public schools and then you and your children would soon know what was unlawful and the penalty for violating the law. The lawyers of course didn't like this. They are willing to teach hygiene and health topics in the schools, but when it comes to teaching anything that they have for sale a howl goes up. Most states need more business men to make laws and fewer lawyers and pea-nut politicians.

MOTIVES.

I am not so much concerned in teaching you how to treat disease as I am in helping you get what is due you for your work. I want you to do more practice, but above all I want you to become one of the men who will not work without pay. Charity is all right. It is a grand thing. But it should begin at home. Don't hang on to your pay patients for fear you will lose some practice. Shake them up. Make 'em pay. Be charitabe to your wife and children and your creditors first. I always pity the man who runs every time he has a call and lets the bill pile up while he is too much of a coward to make them "come across" with some money once in a while. What do you want with their practice if they don't contribute to the support of yourself and family?

CHRONIC CATARRHAL DISEASES.

Chronic catarrh never fails to indicate general constitutional debility. Local treatment is always desirable but for permanent results efforts must be directed toward promoting general functional activity throughout the body, and a general increase of systemic vitaliy. The notable capacity of Gray's Glycerine Tonic Comp. in this direction readily accounts for the gratifying results that can be accomplished through its use in the treatment of all chronic catarrhal affections, but especially those of the gastro-intestinal canal and respiratory tract. The particular gratifying features in the results accomplished by Gray's Glycerine Tonic Comp. are their substantial and permanent character. This is naturally to be expected since they are brought about through restoring the physiologic balance of the whole organism.

Convulsions: The alimentary canal is the seat of trouble in ninety-seven cases out of a hundred.—Clinical Medicine.

NOTES ON INTRA UTERINE MEDICATION

JOHN A. BURNETT, M. D.
Hartshorne, Oklo.

Washing out the womb in a correct manner with proper antiseptic and cleansing solutions is what I call intra uterine medication. The proper way to wash out the womb is taught by Dr. C. Woodward in his book on "Intra Uterine Medication" and in his many articles on this subject which have been published in various medical journals. His articles bring his book down to date.

Intra uterine medication as taught by Dr. Woodward is not generally known by the average class of physicians. It should be universally known by all physicians as it is capable of doing much good in many diseases of women and in some cases nothing else will take its place. In this article I will only mention very little on this broad subject. I cannot go into the technique and details as to do so would require a good size book. Even the laity knows the importance of keeping diseased parts cleansed by antiseptic solutions and it would be reasonable even to a layman that a diseased womb should be kept cleansed of such foul material as can often be found in many cases. Some may think that the womb does not need washing out only when there is a bad discharge. This is a mistake as there are many cases that need washing out when there is no discharge.

Most physicians when they do wash out the womb use a continuous flow. Dr. Woodward condemns the continuous flow. According to Dr. Woodward the continuous flow is likely to cause uterine colic. And when the continuous flow is used one cannot tell so well when the womb is cleansed when using such agents as solutions of hydrogen peroxide. Intra uterine medication is of special value to women in passing through the change of life if they have much trouble at this period. At the change of life in women the womb and ovaries undergo atrophy as they are no longer capable of physiological function.

One thing that often causes trouble during the change of life is because the neck of the womb begins to undergo atrophy before the body of the womb. This causes a retained secertion and washing out does much good. I could mention various conditions where washing out the womb is needed, in fact it can be used with beneficial results in a very wide range of diseases of women.

Some cases many need washing out every day for awhile, some every other day or every third day or once or twice a week or once or twice a month, etc. This depends upon the nature of the disease, its severity, etc.

I do not wish to be understood that intra uterine medication is a cure all or that it is needed in all cases in diseases of women. I only advocate its use when indicated. It is certainly an important treatment or an entire book could not have been written on the subject. Dr. Woodward has had about 30 years experience in intra uterine medication and what he has said is based on clinical experience.

Intra uterine medication has no comparison with a vaginal douche, it is entirely a different procedure. Dr. Woodward says a trained nurse cannot give the treatment properly and that it must always be given by the physician.

I have devoted particular attention to diseases of women for the very reason I find plenty of this class of diseases. I have devoted considerable attention to intra uterine medication for several years which can be proved by

reference to some of my articles and noticing the dates of publication. As evidence and for convenience of those interested I will state that I have contributed several articles for different medical journals on different diseases of women. I will mention a few as follows: "Intra Uterine Medication," Wisconsin Medical Recorder, April, 1907; "Intra Uterine Medication," Therapeutic Record, May, 1907; "The Clitoris," Regular Medical Visitor, Sept., 1903; "Dysmenorrhoea," Wisconsin Medical Recorder, Aug., 1903; "Menorrhagia," New Albany Medical Herald, June, 1904; "Leucorrhoea," Medical Summary, Oct., 1903; "Circumcision of Women," California Eclectric Medical Journal, May, 1909; "Menstruation," Medical Era, June, 1903, and several others that I could mention.

ELECTRICITY and its APPLICATION in MEDICINE

ZACHARIAH. G JONES, M. D. Kansas City, Mo..

(Continued from Page 278 October Recorder)

The average medical man does not know any more about electro-therapeutics than an aviator knows about pedriatics, yet he will condemn it and endeavor to influence his clientele against taking electrical treatment. I had a number of cases of this kind, and although the family physician had treated some patients for several years continuously without the slightest evidence of improvement, he earnestly endeavored to persuade the patient to continue under his care and told them that electricity was a fake. Fortunately for electricity, I have been successful with every one of these cases that have come under my care against the doctor'' protestations, and fortunately for me they are my friends and friends of electrical treatments today without a single exception so far as I know. I had a physician in my office recently who told me that he was going to specialize on electrotherapeutics, and he went on to tell me of some of his work. He mentioned to me about treating a case of prostatic disease with what is known as copper cataphoresis and as luck would have it he told me too much, and went on to describe his method and began with a description of his "battery". This man was actually using the wrong kind of a machine, to say nothing about the application. I described the direct or galvanic current in the beginning of this paper and this is the only current that will produce metallic anaphoresis, but this doctor was using what is known as a high frequency coil attached to a copper electrode. Now, he not only failed to produce copper cataphoresis but his patient's life was in jeopardy for he might have done him a life-long injury. I insisted that he lay electrical machinery aside until he learned how to use them and I think that he did so. Another lady applied to me for treatment for goiter, and told me of having taken treatment from another doctor without results and when I asked her what kind of treatment she had received she replied that she did not know the name of the treatment, but from her description of the method of application I decided that she had received what is known as the static shower. Now, this treatment could be used incessantly for a life time without results, for it is only useful for mild cases of nervousness, and the treatment she should have received was the galvanic current applied directly to the gland or the rapid sinusoidal current applied to the seventh cervical vertebra, these are the only

electrical treatments that should be used in cases of goiter. Another man applied to me after a long siege of treatment for prostatic disease in which the doctor had been using the high frequency current in the rectum, and the faradic current in the hands. His trouble called for the negative galvanic current applied to the prostate within the bladder and the static wave applied to the perineum. Six weeks of this treatment cured him. Another man applied to me for treatment for a similar trouble who had been treating with a doctor who had been cauterizing the prostate. He got no relief but apparently was getting worse. I treated him eight weeks and he went away practically cured. I saw another man who had purchased a two cell galvanic battery upon the advice of his physician, to treat himself for nervousness and rheumatism. The physician did not instruct him how to use it, if he knew, and he laid it aside in a short time and was on the verge of condemning electricity because his "battery" failed to cure him. When he showed his machine to me I told him it was intended to remove warts, moles, etc., and was not intended for rheumatism at all. I had another lady apply to me who had lost faith in electricity for she said she had taken electrical treatments for a long time without results. I asked her what kind of treatment she had been taking and found that her doctor had been giving her faradic treatments in the hands for womb trouble. One had as well put a few drops of castor oil on a corn and expect it to act as a laxative as to look for results from this kind of treatment. Yet physicians condemn electricity because it don't cure their patients. How can they expect it to do anything when used so ignorantly.

Fear. There is a tendency on the part of laymen and physicians as well to entertain a feeling of fear of the danger qualities of electricity. I wish to say in this connection that any thing of any worth must possess power and if it is useful when properly applied it becomes a source of as great a danger if wrongly used. This is one test of the virtue of any remedy, for anything that is perfectly harmless whether used rightly or wrongly certainly cannot be very efficacious for if it has physical powers it must be injurious if improperly applied. Let me cite an example—Christian Science. Every person possessing a faculty of intelligence as big as a mustard seed knows that this system is a preposteration and a fraud, for it is not in accordance with any of nature's laws, therefore, it is harmless except in so far as its victim may be neglected and thereby suffer the consequences. The system, itself, has not efficacy enough to be of any real worth, nor to be injurious.

It is not necessary to say that the surgeon's knife is dangerous for every one knows that it is. It should be used in those cases that would not respond to anything else, and in them only, but they are very few indeed. Everyone knows that medicines are dangerous but very few fear them. I am sometimes amused when patients consult with me about treatment and when I mention electricity they at once show signs of fear, but if I go to my medicine case and put up several doses and hand it to the patient, there is no signs of fear—yet there is many times the danger in medicine that there is in electricity. I am going now to tell you the reason why. The eyes of man are prone to deceive him, and a physician may look at a label wrongly and thereby give a patient the wrong drug, which may result disastrously, or he may make a mistake in putting up the right amount, or maybe he has forgotten the dose, or it may be put up by an ignorant clerk in a drug

shop; then again, some people have what is known as idiosyncrasy against some one drug and an ordinary dose of it would be extremely dangerous. Now, as I said above, anything to be of very much worth must necessarily possess power, and electricity is one of the most powerful things that we know of, but it harmless when properly applied. If all the current coming from a large dynamo were poured into a patient it would be extremely dangerous but the current passing through our machines cannot cause injury because the machine will not carry enough to be dangerous; of course, if improperly applied it may do harm just like anyhing else, but it will not be dangerous to life. One might say that to capsize a boat in the middle of the river it would be dangerous, but one is in no danger when taking a bath in a tub, although the water is taken out of the same river, so it is with the current of the dynamo, but the current coming through our machine is not dangerous any more than the water in the bath tub. In using electricity we begin at nothing and turn the current on gradually, and when we have reached a point strong enough, we stop; or if the patient is susceptible to it, the current can be turned down a little, or turned entirely off, instantly, and there is no after effect. I hope that I have made this plain and that my reader will pass over that feeling of fear of electricity that hangs over so many people.

Examinations. In making examinations, especially of lady patients, it is highly improper to subject them to the horrid exposures that are customarily practised. Unfortunately almost every physician has a habit of laying his patient on a table and making his examination by sight and with instruments. This method I abandoned years ago, and with few exceptions I can now make correct diagnoses by making my examination under cover and in a room as dark as dark can make it. Sometimes it is necessary to make examinations according to the old method but during the last ten years I cannot recall a single case where exposure was necessary, and I have decided to continue my examinations according to my new method. No light, no exposure, and no instruments is my hobby, in the examination of women.

Treatment. In treating women I have found it just as plausable and as accurate to administer treatment in a dark room and under cover as it is in making examinations. This, of course, is not possible with many of the older methods of treatments, but with electricity it is possible and practical, and in fact I believe that I can administer most of the treatments for the diseases of women in a room so dark that I cannot so much as see the patient. All the light that I have is a shaded ½ candle power electric light, close up to my meter so that I can measure the dose, and I also have a small time piece fastened near the meter so as to reckon the time. This procedure may appear unnecessary, but it is the duty of the physician to protect his patient in every way possible and to overcome that part of examination and treatment that is so opposed and dreaded by almost every lady patient, and when we come to estimate the great number of women who willfully neglect themselves because of this dread, I think that it is high time that some one was inventing some means to overcome it.

There is probably no branch of medicine in which electricity plays as important a role as it does in the treatment of the diseases of the sexual organs especially in women. This does not mean that electricity is not useful in other diseases but it is practically the only treatment that will give relief in many of the chronic diseases of men such as prostatic diseases, strictures, etc., and it stands between

health and semi-invalidism in reference to the diseases of women, if not even between life and death. When women apply to physicians for treatment for pain low down in the abdomen, or in the side, accompanied by backache, and probably a vaginal discharge and nervousness, and frequently headache, he usually begins with some kind of a vaginal packing and hot douches but it is only a short time until hope in such procedures is abandoned, then she is advised to go to the hospital for an operation. It is estimated that 90 per cent of the operations upon women are for inflamatory diseases and of this enormous percentage 70 per cent of the total is for gonorrheal infection received from the male. It is estimated that 85 per cent of the entire male population of the United States has or has had gonorrhea, and when a man has once contracted this horrible malady he is seldom, if ever, relieved of it. His symptoms will disappear but the germ of the disease will imbed itelf in the deep parts of the urethra or in the prostate gland, and will from there be transferred to his innocent wife many years thereafter. I do not want to be misunderstood as saying that the gonorrheal disease is always an incurable disease for I firmly believe that under certain conditions it can be positively and permanently cured, but unfortunately mankind gropes in such profound ignorance in regard to the devastating horrors of this dreadful malady that the average patient will neglect himself and allow the infection to establish a permanent home in the parts as I have described above. Not only are men ignorant about it but the women, too, neglect by preference, this important branch of their education. "I entered upon this subject with a young woman sometime ago, upon her request, and after I had spent some time endeavoring to enlighten her upon the subject she expressed herself that it was too bad that women would take such chances as they did, but she said that she was mighty glad that her fiancee was all right, and when I asked her if she was sure that her opinion was correct she assured me that there could be no doubt about it, but this very man had had gonorrhea to my knowledge, only a short time before." This woman, like nearly all others had confidence in this particular young man but looked upon all others with an eye of suspicion, and her opinion, to her, was correct without doubt. The couple were united in wedlock, however, and she came under may care a short time afterward for treatment. A large percentum of the women who have operations have the ovaries or uterus removed and when any of these organs are taken out that woman will never see another well day, for if she survives the operation she will be a semi-invalid the balance of her life. This is the reason for my remark above, that probably the most important role of electricity in medicine was for the treatment of the diseases of women. Very few women would require these mutilating operations if the electric modalities were properly applied at the right time. Electricity is not a cure all by any means even in the diseases of women but if it were properly applied the operations would not be performed by the wholesale as they are today, but the removal of any of the female organs would be an exception instead of the rule. Electricity furnishes us with the most posiitive means of destroying the gonococci. It is a well known and recognized fact that the germ of the disease cannot survive a few applications of the proper electro modality.

Now, I believe I have said about all that is necessary about electricity, and its application in medicine in a general way, but to corroborate my claims made above I will cite a few cases that have come under my care, for "The

test of the puddin' is to eat it.''

Case No. 1:

Miss A., age 26, a native of St. Louis gave me a history of having suffered severe pains at the menstrual period for a number of years, and for the past two years she had had considerable discharge of a muco-purulent nature. She had neglected taking treatment because she said she dreaded the exposure that she would have to undergo if she should apply to a physician. She applied to me for treatment for an injury which she had received a few days before and while in my office she asked me to demonstrate my electric machinery, which I did, and she was somewhat curious to know what I could treat with electricity and when I touched upon chronic and special diseases of women she asked how it would do any good for such troubles as she was suffering from and what method I had for giving treatment in such cases. She did not intimate that she herself was a prospective patient but went on to say that she would die before she would go to a doctor for treatment. I naturally inquired the reason for her offensive attitude, and she replied that she had gone with other women to physicians for examinations and treatment and that the exposure was more than she would submit to. I explained my method of examination and treatment as I have described above, and at her next visit for treatment, for her injury, she made further inquiry about other kinds of treatment and then, to my surprise, she told me that she had been inquiring relative to her own trouble and said that she had decided to take treatment if what I had told her before was true. I questioned her further and she told me that she had been troubled with painful menstration from the time when she first arrived at woman-hood. Sometimes the pains would last only a day and sometimes two or three. Usually the hot water bottle was her only source of relief. Upon examination I found considerable cellulitis and some vaginitis. There was considerable discharge and she was so sore that I had trouble in making the examination. I placed her under daily treatments and after about two weeks she unconsciously began to menstruate, the first, she said, in her life time that was not attended with pain. This time she did not go to bed nor use her hot water bottle, but went on with her household duties and outside occupation. She called at my office to make her daily report and I told her to report again when the menstrual period had ceased. She reported again as I had requested, and I consented to her discontinuing treatment and to report to me occasionally upon her condition. She has not had any return of her trouble, however, and she called at my office yesterday and said she was so well satisfied that she volunteered to write a ''testimonial'' for publication if I desired it, but I told her that testimonials were only used by quack advertisers, and that I could not use it.

Case No. 2:

Miss B., age 20, a native of Kansas, applied to me for treatment for a complication of which nervousness, sleeplessness, loss of appetite, nausea, constipation, pain in the left side, headache, and pain in the back part of the neck, and tender spots at different places along the spine were her most prominent symtoms. She had been under a physician's care for several months but apparently without any indication of relief. I placed her under treatment and at the end of the first week she said the pain in her head and neck had completely subsided and she began to sleep better, and at the end of her second week her appetite began to improve and her conssipation began to subside, she began to feel stronger and less nervous, the pain in the side had been considerably reduced, and

what was left had begun to move about from one place to another instead of being stationery. She was now able to take long walks with comfort and could eat anything that she desired without any bad effects except sometimes she said she felt somewhat nauseated. I kept her under treatment for five weeks and excused her. At the completion of treatment the only symptom of which she complained was some nausea at times but she said that if she could live without pain she would be satisfied.

Miss C., age 27, a native of Missouri, had been suffering with profuse and painful menstruation, which come on about every two weeks and continued for about one week each time. There was profuse muco purulent discharge from the time she first arrived at womanhood, and when she applied to me for treatment she said she had just completed a course of treatment with another physician under whose care she had been continually for two years past, but without any perceptible improvement. She was very frail and delicate and said that she had about given up hopes of ever being cured, for she said she had been under the care of physicians most all the time for the past twelve years but so far she had failed to get any relief so far as she could see. The discharge, she said, was worse, if anything, than it had been for a long time past. She was almost a physical wreck and very nervous. She told me that suicide had entered her mind a few times. Some of her medical advisers were surgeons and, of course, an operation had been advised. Her weight, when she consulted me, was 91 pounds. She had very little appetite and was troubled with sleeplessness. On examination I found the uterus enlarged and soft and laying at the vaginal orifice. She said it had been down that way for a long time and that it got so sore at times that she could hardly sit down. Further examination revealed adhesions both to the bladder in front and to the rectum behind. There was a severe erosion of the cervix. There was an abundance of discharge coming from the uterus which was quite tenacious for she had just passed a menstrual period. Both ovaries had also fallen out of position and was congested, enlarged and very tender. She also had cellulitis and was so sore and tender that a thorough examination was impossible. I placed her upon treatment for the cellulitis and as soon as the soreness and tenderness had subsided sufficiently I began treatment to break down the adhesions and for the uterine trouble. The treatment was continued daily for one month and I advised her to take a rest for a few months to give nature a chance to do its part in the process of repair. At the time when I temporarily suspended treatment she told me that the discharge had about one-half subsided and that she had missed the inter-menstrual period and a great deal of the soreness and tenderness had been removed. On examination I found the adhesions had been destroyed and the uterus had almost resumed its normal position. The erosion had healed. The ovaries were less tender and had been reduced a great deal in size and had also resumed their normal position, except they appeared to fall somewhat when she stood upon her feet too long at a time, but not so badly as before I began treatment. She said she felt considerably better except when she stood on her feet too much. I did not take her weight at the completion of treatment but about one month thereafter I weighed her and she weighed 101 pounds and had a much better color and showed signs of recuperation. She is a girl with an occupation and in the employ of a large railway company and her hours at present are so arranged that she cannot get away during my office

hours so it is doubtful if I have an opportunity to continue her treatment, therefore I am making this report upon the progress that had been made thus far, as I entertain little hope of being able to carry out the full outline, because she is self supporting and cannot afford to give up her position. This shows, plainly, however, that her fate rests with electricity for about all other therapeutic measures have been tried over a period of several years and all have proven fruitless. Electricity accomplished more in one month than all other treatments did in the years that she took them.

(To be Continued)

MISCELLANEOUS

LOBAR PNEUMONIA.

Report from "Mulford Laboratories."

DEFINITION.

Lobar pneumonia is an acute infections disease of the lungs, involving completely one or more lobes (hence the name "lobar"). It should not be confused with broncho pneumonia which is usually a mixed infection of the air passages, extending to the small air cells, but not limited to a definite section of the lung. Lobar pneumonia is also known among physicians as croupous pneumonia, fibrinous pneumonia, lung fever, pneumonic fever, and pneumonitis.

CAUSE.

The disease is due, in practically all cases, to a micro-organism known as the pneumococcus of Fraenkel. It was discovered by both Sternberg and Pasteur in 1880, but it was only in 1894 that Fraenkel proved it to be the cause of lobar pneumonia. A very few cases of lobar pneumonia have been reported due to the pneumobacillus of Friedlaender, the streptococcus and the influenza bacillus. The symptoms in these cases, however, differ from those of typical lobar pneumonia.

SOURCE OF CONTAGION.

It is an interesting fact that 80 to 90 per cent of all persons harbor the pneumococcus in their mouths. The factors necessary to enable this organism to cause an attack of pneumonia are not definitely known. It is usual to associate exposure of any kind, especially to cold and wet, with the occurrence of pneumonia. This may act as a depressing factor, lowering the resistance and enabling any pneumococci which reach the small air cells of the lungs to multiply and attack the tissues. Contagion from a person harboring pneumococci of special virulence doubtless explains a number of cases. By "virulence" is meant the ability to grow in the body and produce disease. Such virulent pneumococci may be readily communicated from one person to another. It is well known that pneumonia frequently occurs in epidemic form, that is, a number of cases appear within a short period in persons closely associated, and even epidemics of pneumonia occur, just as "contagious colds" travel around.

PATHOLOGY.

When the pneumococcus reaches the small air sacs of the lungs and conditions are suitable for its growth, symptoms of disease soon appear, such as fever, severe pains aggravated by coughing or strong inspiration, quick hard pulse, difficult breathing. Locally there is first a congestion and edema (swelling from accumulation of serous fluids), and the lung rapidly becomes heavy and solid and red from blood and fibrinous exudate. After a time the diseased portion of the lung changes to a gray color, due to the accumulation of phagocytes and the breaking up of the

fibrin preparatory to its removel and the restoration of the lung to its original condition. In the early stages of the disease the pneumococcus is nearly always present in the blood.

Contrary to the usual belief, death rarely occurs from the consolidation of the lung and interference with respiration. It is due to the action of toxins liberated by the breaking up or dissolving of the pneumococci. The well-known crisis of the disease is believed to result from the destruction of the pneumococci in the lungs and the neutralization of the toxins circulating in the blood. It is not dependent upon the clearing up of the lung or "resolution."

OCCURRENCE AND PREVALENCE.

Children up to the sixth year are very susceptible to pneumonia; after the fifteenth year susceptibility increases with each decade. It is very likely to attack individuals debilitated from sickness, lack of food, alcoholism, and those with constitutional defects. There is always danger of pneumonia occurring in persons suffering from other diseases, such as diphtheria, typhoid fever, influenza, pertussis, etc., and in such cases it frequently influences a fatal outcome.

The mortality in pneumonia ranges from 20 per cent to 40 per cent. It is one of the most widespread and fatal of all acute infectious diseases.

SERUM TREATMENT.

The scientific basis underlying the use of anti-pneumoccoccic serum is easily understood. There can be no doubt but that recovery from pneumonia is brought about by antibodies destructive to the pneumococci and capable of neutralizing their toxins. These anti-bodies are formed more or less slowly by the body cells and the injection of antipneumococcic serum which affords additional antibodies from without, is a valuable therapeutic measure, especially when resorted to early in the course of the disease.

The method of preparing antipneumococcic serum is practically the same as that employed in the production of other serums. Horses are immunized against the pneumococcus and when the serum shows a sufficiently high content of antibodies they are bled and the serum is prepared for use. (It should be emphasized that Antipneumococcic Serum Mulford is secured from horses which are receiving enormous doses of washed pneumococci. This method is a great improvement over that usually employed in which the entire cultures are injected; only relatively small doses can be given in this way, and the resulting serum is consequently far less potent.

TYPES OF PNEUMOCOCCI AND THEIR BEARING ON SERUM TREATMENT.

There are a number of distinct types of pneumococci. Against each one of these it is necessary to have specific antibodies (antibodies effective against one type usually have no action on the other types). It is therefore essential that the serum be polyvalent, that is, it must contain antibodies corresponding to as many types of pneumococci as possible.

ADMINISTRATION.

Antipneumococcic Serum Mulford is injeced in the same manner as diphtheria anti-toxin, and like that remedy should be given intravenously in severe cases or when used late in the course of the disease. Absorption from the subcutaneous tissue is slow and the entrance of the curative serum into the circulation is a gradual process extending over a period of one to two days. With intravenous injection the antibodies are placed immediately into the circulation and the loss of valuable time, during which the pneumococci are rapidly developing, is avoided.

DOSAGE.

The point needing greatest emphasis is large doses. Laboratory experiments show that until the antibodies in the blood reach a certain concentration

there is no curative action. Neufeld and his collaborators estimate from their experiments on laboratory animals that at least 75 c. c. must be given in man before any action is secured. As curative injections in man are not usually made until the disease is well established, Cole thinks the minimum dose from which results can be expected must be greater than 75 c. c. At least 100 c. c. should be given in order to obtain in the blood a concentration of antibodies effective against the pneumococci and their toxins. Subsequent doses of 20 c. c should be given at intervals of 4 to 6 hours to maintain an efficient concentration until the infection is overcome. In a series of cases recently reported by Cole the total amount of serum administered ranged from 190 to 460 c. c.; one patient was given a total of 700 c. c. The serum was administered intravenously.

BACTERIN TREATMENT.

Bacterin treatment also has been effectively used in pneumonia. Like the serum, the bacterin should be polyvalent, and should be administered at the earliest possible moment. It may be employed as an adjunct to serum treatment, the object being to stimulate the body cells to produce anti-bodies against the infecting pneumococci, and thus greatly increase the concentration in the blood. Pneumo-Bacterin Mulford is supplied in packages of four syringes of increasing strength. From one-fifth to the entire contents of Syringe A should be given as the first dose; subsequent doses, graded by the action produced, may be given at 24 to 48-hour intervals.

PNEUMO-SEROBACTERIN MULFORD.

The rapid development of pneumonia makes time a vital factor. For this reason Pneumo-Serobacterin Mulford should be the bacterin of choice. Its action is immediate and large doses can be given at short intervals. In laboratory experiments with Pneumo-Serobacterin made by Levy and Aoki it was found that rabbits immunized with Pneumo-Serobacterin could withstand 10,000 times the minimum fatal dose of living virulent pneumococci. Rabbits inoculated with 100,000 virulent pneumococci and a similar dose of sensitized pneumococci (Penumo-Sero bacterin in another part of the body at the same time), also survived. On the clinical side, Cohendy and Bertrand report the treatment of seven cases of typical lobar pneumonia with polyvalent Pneumo-Serobacterin. In five of the seven patients the temperature fell to normal in from 20 to 40 hours after the first injection and the symptoms of the disease disappeared. Pneumococci taken from these patients corresponded with those contained in the serobacterin. The sixth recovered in three days although the pneumococci secured from the patient poved to be different from those in the serobacterin. The seventh case ended fatally. In this patient also no corresponding pneumococci were found.

Pneumo-Serobacterin Mulford will be supplied in packages of four graduated syringes, A, B, C, D strength, and syringes D strength separately. As both local and general reactions from serobacterins are slight, or entirely absent, much larger doses can be given and more frequently. Protective substances are formed in the blood very rapidly, and the disease process is combatted much earlier in its course, and consequently more effectively.

Serum and bacterin treatment do not interfere with any other treatment that the physician may wish to carry out and are often given conjointly with benefit.

AFFECTIONS OTHER THAN PNEUMONIA DUE TO THE PNEUMOCOCCUS.

The pneumococcus may locate in other parts of the body and produce disease, such for example as pneumococcic perintonitis, arthritis, ulcer of the cornea, pyorrhea alveolaris, etc. In

these cases both serum and bacterin treatment are indicated.

IMMUNIZING AGAINST "COLDS" AS A PREVENTIVE OE PNEUMONIA.

Persons susceptible to "colds" should be given a series of preventive injections of Influenza Bacterin Mixed Mulford at intervals of two to six months. In this way pneumonia may usually be avoided. It is a procedure of extreme value in elderly and debilitated persons, as well as in those suffering from any of the diseases which tend to terminate in an attack of pneumonia. (The subject of immunization against colds is very able treated by Dr. Hitchens in the December Digest. His article should be read carefully.)

CONGESTION OF THE LIVER.

By J. A. Burnett, M. D., Hartshorne, Okla.

In this country congestion of the liver is the most common condition met. The following is from my article on "Congestion of the Liver," June 1904, Chicago Medical Times.

"The synonyms of congestion of the liver are torpid liver and biliousness. This form of liver disease is extremely frequent. It is an abnormal fulness of the vessels of the liver with enlargement of the organ. It is termed active when arterial; passive when venous."

There are various remedies used in congestion of the liver. Here in this country where it often takes strong medication the following is used:

℞

Calomel .....gr. xv
Podophyllin .....gr. ii
Sodium bicarbonate .....ʒ i
M. fl. chart No. iv.
Sig.—One every hour until all four are taken.

In some cases it is necessary to repeat this in two or three days. In my article on "Hepatic Remedies," December, 1905, Medical Arena I made the following statement:

"In some journal I read that calomel podophyllin, nitrohydrochloric acid, and ammonium chloride would cover most all indications in liver diseases—that is, these four remedies would cover a wider range of liver diseases than any other four drugs."

My experience is that sulphuric acid has more influence on the liver than nitro-hydrochloric acid and I prefer to use it in combination with magnesium sulphate. Really I have never seen any effect from ammonium chloride on the liver, however it is said to be of value, especially when combined with chelidonium. In ordinary cases of biliousness and where a gneral as well as a stomach tonic is needed the following is of real value:

℞

Dilute hydrochloric acid .....ʒ i
Tr. nux vomica .....ʒ iv
Seng ..... ʒ viii
Chionia q. s. .....ad ℥ viii
Sig.—Dose one teaspoonful three times a day after meals.

In most all sub-acute and chronic cases as well as in many acute cases of congestion of the liver an acid is needed and it is occasionally hard to clean a coated tongue or restore the appetite without the aid of an acid.

Very often the patient will have a great desire for an acid especially so in the case where calomel and soda has been used freely without claning the coated tongue.

The following is occasionally of much value in cases of loss of appetite where calomel has been used without clearing the coating off the tongue.

℞

Dilute nitro-hydrochloric cid.. 8.0
Tr. nux vomica 4.0
Comp. tr. cardamon 64.0
Comp. tr. gentiana 164.0
Whiskey 128.0

M. Sig. Dose one tablespoonful before each meal. Of course there are many other useful drugs in congestion of the liver that I have not mentioned.

In the malarial belts and southern states the liver seems to require more attention than in the northern states. For further information on this subject I will refer the reader to my article, "Practical Treatment of Hepatic Disorders," August. 1910, Wisconsin Medical Recorder. If the reader does not preserve the Recorder and have them bound he should do so. A medical journal that is not worth preserving and binding is not worth taking.

X-RAY TUBES.

By H. C. Bennett, M. D., Lima, Ohio.

Symptoms of tubes and now to treat them.

1.—A very high vacuum tube. The tubes often get so high in vacuum or internal resistance that it is impossible to force any current through them, and hence they will not illuminate. This is often indicated by the tube giving a diffused light without a sharp hemisphere. This tube should be reduced before trying to put any current through it, for the internal resistance may be so high that the current is apt to jump around the glass bulb of the tube and punture it at the anode or cathode system.

2.—High vacuum tube. This tube may light up and give good sharp hemisphere, but if there are any light flickering bubbles around the cathode or anode stems, it would indicate that the tube is too high in vacuum except for the very heaviest radiographic work and should be reduced before using.

3.—Medium high vacuum tube. This tube will give a sharp and well defined hemisphere without any light flickering bubbles around the cathode and anode stemp, and should not have a fullness of greenish light back of active hemisphere. This tube should be of a deep apple green color and should be free of inverse. It is best suited for bone work and may be too high in penetration for good detail work except with very short exposures.

4.—Medium vacuum tube. This medium vacuum tube is a tube giving a sharp and well defined hemisphere, of a light greenish color and should be free from all inverse. This tube is best suited for radiographing soft tissue, such as kidneys, etc.

5.—Medium low vacuum tube. This tube gives a clear, sharp hemisphere of a pale greenish light immediately in front of the cathode target and it may also have a little trace of bluish light around the assistant anode back of active hemisphere. A tube of this vacuum is usually too low for the average radiographic work, especially is this true if used on an induction coil. It is hard to excite a tube of this kind on a coil without considerable inverse, and at this low vacuum the tube will heat up considerably if a heavy current is used and it is apt to puncture from over-heating.

It is a well known fact, however, that a low tube of this character will give fine photographic detail in soft tissue. This tube should be for treatment work until it regains its vacuum, or operated with the positive wire on assistant anode only.

This medium low vacuum tube will give very satisfactory results on an interrupterless machine. Care should be taken that the tube is not over-heated as it is liable to break off at the cathode neck.

6. Very low vacuum tube. This tube gives a blue cathode stream and the active hemisphere is of a very pale greenish light, and there may also be considerable bluish light back of active hemisphere. This tube is too low for

any kind of radiographic work and is even too low for superficial skin treatment unless duration of treatments are short, for a tube of this character generates an enormous quantity of soft rays that might produce a burn in a very few minutes. This tube will often regain its vacuum if run for about five or six minutes with a very light current, once or twice a day, or on the assistant anode as described above and as soon as the blue cathode stream disappears, it can be put back into service again.

7.—Purple tubes. This tube is extremely low in vacuum and is sometimes called a punctured tube. This tube is too low for any practical purpose and will rarely regain its vacuum and it should be sent in to the manufacturer to be re-exhausted.

8.—A completely punctured tube. A completely punctured tube is one in which a series of white sparks pass between the cathode and anode. This is a complete puncture, and the tube will never regain its vacuum. If the tube is not too old and badly discolored, it should be sent in to the manufacturers for repairs. If punctured in the bulb it will have to be rebuilt

9.—Great care should be exercised in regulating the vacuum of X-Ray tubes for which they are very often injured or punctured while being regulated. Should the vacuum in the tube be reduced too much, let it rest a few minutes so that it may regain its vacuum before attempting to use it for radiographic work as many tubes will rise in vacuum in a very few minutes. If the tube refuses to rise in vacuum lay it aside for a few hours and put on another one for it is a well known fact that many tubes are punctured by operators who will persist in using them for heavy work when they are not in working condition.

There are two things that usually happen under the above condition, an injury or a pucture to tube or not sufficient penetration to affect the X-ray plate properly.

10.—Inverse in X-Ray tubes, operated by induction coils is a very common occurence. Inverse is manifested by rings back of and usually running at an agle to the active hemisphere, often by a fullness of greenish light back of active hemisphere in tube and also by rings around the assistant anode disc, usually two or three inches in diameter. A special valve tube is of great value in preventing this.

Causes for Inverse.

1—Too low vacuum tube.

2.—Platinum point in electrolytic interrupter not adjusted right.

3—Wrong selection of primary inductance.

4.—Bad condition of rectifier, if alternating current.

5.—Primary interruptions too fast, coil generating too high a voltage.

6.—Too much of the rheostat used.

Inverse current in an X-Ray tube generates many secondary rays as well as excessive heat. The secondary rays have a tendency to make the outline of the image on the X-Ray plate hazy unless a sharp diaphragm is used to exclude these secondary rays. The heat lowers the tube in vacuum and hence lessens penetration, for as soon as the anode target softens from the heat the rays that impinge on the target are not given off in the same proportion as they would if a hard surface was bombarded.

11.—Inverse can often be taken out of tubes by using a large platinum point and immersing it into the solution to a point where the interruptions are slower, for a coil working with slow interruptions will generate less inverse current. Inverse can also be overcome by using a valve tube or a spark gap in series with the tube.

12.—Regulating of tubes for coils. Set vacuum regulator at from 1½ to 2

inches and reduce tube with small amount of current until the proper vacuum is obtained.

Regulating of tubes on interrupterless machine. The vacuum regulator should be entirely closed and at this setting bring rheostat or controller out a few buttons and regulate the tube by one or more quick flashes. By using this system when regulating tubes on Interrupterless machines less heat is generated in the tube while undergoing regulation

13.—Tubes for interrupterless. It is always desirable on this type of machine to have tubes that will maintain their vacuum for as long a period of time as possible without regulating, but as it is sometimes impossible to get new tubes that will do this, it is advisable that these tubes be put through a seasoning process. This can be done by using the tubes with light current for treatment work, alternating them from the radiographic work on the Interrupterless to treatment work, and afer a short time they will be seasoned and will often remain at the same vacuum for several days. Operators will appreciate this advatage.

14.—1—A low vacuum tube gives a high milli ampere reading.

2—A medium vacuum tube gives a medium milli ampere reading.

3—A high vacuum tube gives a low milli ampere reading.

For instance, on a certain adjustment of machine, a low tube may give 15 milli amperes, a medium tube 10 milli amperes and a high tube only 5 milli amperes, so that with a given adjustment of machine and a given ampere reading an operator can accurately tell the vacuum of the X-Ray tube by the milli ampere reading, that is, taking for granted that there is no inverse disturbance in the tube for an inverse current will render this meter reading incorrect. For further instrucions, see blue prints and exposure formula for your machine.

Developer for Paragon Plates.

Solution A

Water	64 oz.
Metol or Motol	60 gr.
Hydroquinone	2 oz.
Sodium Sulphite, dry	3¼ oz.

Solution B

Water	64 oz.
Sodium Sulphite, dry	3¾ oz.
Sodium Carbonate, dry	5 oz.
Potassium Carbonate	2½ oz.
Potassium Bromide	180 gr.

Use equal parts Solutions A and B.

Develop Paragons until they appear almost the same on front and back or until the ruby light will not show through them.

Fixing Bath.

No. 1.

Water	120 oz.
Hypo Crystals	4 lb.

No. 2.

Water	80 oz.
Chrome Alum	4 oz.
Sulphuric Acid, liquid	½ oz.
Sodium Sulphie, dry	8 oz.

Dissolve in the exact order given. Add No. 2 to No. 1 while stirring rapidly.

♣ ♣ ♣

Post partum hemorrhage: Carried into the womb a large, hard-pressed ball of snow against the denuded part. Instantly the uterus contracted and expelled hand and snow isto the vagina. —Coons, Medical World.

♣ ♣ ♣

Eclampsia: Used hot pack; gave croton oil; veratrum every 30 minutes till pulse fell to 60, kept it there. Recovered.—Hetherlin, Medical World.

The Wisconsin Medical Recorder

F. W. VAN KIRK. M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 NOVEMBER, 1914 No. 11

As we all know, there is much agitation throughout the country just at present in regard to the Hoof and Mouth Disease, and while financially this is a subject that is of especial interest to the stock raiser, it has also an especial interest to the physician.

When any disease threatens the source of our milk supply it is of interest to each and everyone of us, for thousands of infants as well as young children depend upon milk as their chief article of diet.

It is claimed by many that this disease is injurious to the milk, consequently as soon as it is discovered in a herd it is of the utmost importance that no milk from this herd be shipped to any distributing center. While this question is at present occupying the center of the stage it might be well for physicians residing in communities where this disease is present, to advise all patients to boil all their milk before using. At one time it was thought that boiling the milk would destroy some of the more important properties of the same, but now many of the specialists in Diseases of Children consider that all milk should be boiled before it is fed to infants.

As I said before, really milk is the chief food supply of thousands of young infants and young children. We cannot be too careful in seeing that the said milk is not contamiated in any way at the time of feeding.

♣ ♣ ♣

In one of the late issues of the Re-Recorder our readers were urged to send in articles, reports of cases, and reports of experiences that came up in their daily practice. We are all taking this means of thanking many of our readers for the material sent to us and we assure them that the same will appear in the columns of the Recorder as early as possible. This quick response to the small editorial shows us that the Recorder is being read by many physicians in many sections of the country, and we feel that each article received is an acknowledgement of the physician sending the same, of the high regard he feels for our journal.

♣ ♣ ♣

I am one of those who believe a man can do more and do better work in six days than he can in seven, more in eleven months than in twelve.—Clinical Medicine.

♣ ♣ ♣

Emetine does so many things so well that it is a good thing to give on general principles.—Clinical Medicine.

ABSTRACTS

BLOOD TRANSFUSION.

Blood therapy, or the therapeutic use of blood transfusion, and the conditions in which it is applicable, are treat of by E. Lindeman, New York (Journal A. M. A., Oct. 31, 1914), Many diseases produce change in the quantity and quality of the blood which is responsible for many pathologic conditions Among the conditions in which transfusion has been used are the aplastic anemia of young adults, which is always fatal. Its use, therefore, has not been of benefit, as is shown by his own experience, and supported by the literature on the subject. Splenic anemia, with hematemesis, including Banti's disease, is associated with syphilis in many cases. In these cases transfusion will be of little use until the syphilis has been treated, but after the syphilitic process has been controlled, it is specific. Following the combined therapy, splenectomy may be considered. In gastric ulcer with hemorrhage and anemia, nature provides two factors of safety: (1) a fallen blood pressure, and (2) a decrease in coagulation time, due to the dilution of the blood with the tissue fluids. If transfusion is done, it had better be done after all bleeding has ceased, and time allowed for a crust to seal over the bleeding area. If operation is contemplated, transfusion should preferably be done first. According to Lindeman's experience, it is in deep ulcers, liable to perforate, and characterized by severe and frequent hemorrhages that operation is desirable. In alcholic cirrhosis of the liver with severe secondary anemia, the liver cirrhosis is not a contra-indication to transfusion, and the results are good. Lindemas has had no success in treating acute leukemias by transfusion. In hemophilia, the coagulation time is greatly delayed, and prothrombin decreased in the blood. Transfusion supplies this, as well as replaces the lost blood, and is the measure of choice, and should be performed during the active stage of bleeding. After transfusion, the coagulation time is materially reduced, but, curiously enough, does not remain constant, as shown in a case here reported. In the simple anemia of high degree and unknown cause, and frequently fatal, occurring most often in young women and girls, blood transfusion has produced striking results after other methods have failed. The new blood corrects the pathologic condition, and apparently stimulates the patient's blood-making power. Where bleeding cannot be controlled after cholesystotomy human serum in large quanties may help, but in some cases fails, and transfusion is necessary. Sometimes it should be repeated several times—every day or every other day. In carcinoma and sarcoma, there are theoretical reasons for transfusion, and Crile has reported a cure of sarcoma in a dog by this means. Lindeman has had no experience in regard to its value in these conditions. He reports a case of chronic sepsis in a child, with severe anemia and multiple purpuric hemorrhages, cured by blood transfusion, and from observation of this case and others, he has become convinced that the blood of a normal healthy individual contains bactericidal elements, or elements that inhibit the bacterial growth, of considerable potency, that may enable the patient to develop his own active immunization and destroy the organism causing the disease.

THE MEDICAL SCHOOL AND THE STATE.

In an address delivered at the dedication of the Robert W. Long Hospital of the Indiana University (Journal A. M. A., Aug. 22, 1914), S. H. Pritchett, President of the Carnegie Foundation,

New York, holds the view that the medical profession is a quasipublic one, that in modern scientific medicine all sectarian divisions are meaningless, that the rise of preventive as well as scientific medicine has enlarged the state's obligation to oversee and control the public-health question, including the practice of medicine and medical education. A state board or commission with its executive officers will doubtless be the organization through which the state authority will be exerted, and the university only furnishes the chance to put scientific ideals into practice. There should, therefore, be the closest correlation beween the state board of health and the university medical school. The public should be educated to recognize these conditions, and Pritchett says, is a state like Indiana, a single school of modern medicine is the true solution of the problem. He condemns the commercial medical schools which exist, and points out how their claims of service to the public are fictitious.

TESTS OF LIVER FUNCTION.

A. M. Chesney, E. K. Marshall, Jr., and L. G. Rowntree, Baltimore (Journal A. M. A., Oct. 31, 1914), report the results of an investigation undertaken to determine the degree and frequency with which functional changes can be demonstrated in anatomically diseased livers; the clinical types of liver injury in these functional changes are most marked, and the diagnostic and prognostic value of the changes. The various tests are described, and their value estimated. The authors conclude that outspoken changes in liver function can be demonstrated in most cases of advanced liver cirrhosis, in markedly congested livers with myocardial insufficiency, in cancer and syphilis of the liver, and in conditions of cachexia, with marked anemia. They are most marked in cirrhosis, neoplasm of the liver, and in cachectic states of the liver. In chronic passive congestion functional changes have not been frequent or pronounced. In most of the tests indicated either a decrease or a normal function, the findings are in agreement, but lack of harmony is striking in other cases. As regards the relative merits of the tests the authors have the impression that the determination of the phenoltetrachlorphthalein excretion, the fibrinogen, and the nitrogen partition in the blood and urine, are of decided value in revealing the presence of, and to a less degree the extent of, functional involvement, while the demonstration of a fibrinolytic ferment is of decided diagnostic importance, while that of the sugar tolerance, and that of the lipolytic activity of the blood, are of much less value. They say: "The information derived from these studies of the liver does not compare in diagnostic and prognostic value with that derived from corresponding studies of the kidney. This may depend on several factors, namely, (a) the inadequacy of our knowledge of liver physiology; (b) the limited number of cases and of types of severe liver injury under observation; (c) the possible existence of a great 'factor of safety' in the liver, whereby in case of necessity function is carried on efficiently by a relatively small proportion of liver substance; (d) the fact that the prognosis in many of these cases is controled by factors other than decreased liver function, and (e) the lack at present of correlation of anatomic, clinical and functional findings occasioned by the newness of the subject. The results, however, encourage us in the belief that scientifically and also clinically this subject is worthy of extensive investigaton."

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Radium has been used successfully in myeloid leukemia.

PLACING THE BLAME.

At the present day much discussion is being heard on every side concerning the role of the intestinal canal in the causation and development of innumerable diseases. Once the liver was the chief malefactor, and a disordered liver if not blamed as the chief cause of pretty nearly every disease that "human flesh is heir to." was sure to be considered particeps criminis. As the indictment of the liver has been narrowed and its culpability brought within more specific limits, some other culprit has become necessary. How natural to turn to the liver's closest associate and known accomplice, the intestinal tract? Thus it is that the "human cesspool," as Sir. Wm. Arbuthnot Lane has styled the intestinal canal, has had to stand accused of the etiologic crimes that the liver is no longer held accountable for.

But, as always happens, interest in the depravity of the new culprit has made the actual misdeeds of the old lose much of their importance. And so, gradually but none the less surely we have grown to ignore the crimes of the liver, until at last in our indignation at and fear of the intestines, we are almost ready to look upon the liver as "more sinned against than sinning," a victim of hasty and unwarranted accusation.

With this state of affairs, it is not surprising that the liver, wily and dangerous old offender that it is, has been allowed to perpetrate many outrages without being called to account. It is high time that medical men awoke to the fact that the liver is the same old trouble-maker it has always been, and needs watching as closely as ever.

Indeed, recent study of intesinal stasis and associated conditions has shown that the liver is often the main culprit even in this affection. The action of the bile in controlling intestinal putrefactio, arresting bacterial activity, promoting peristalsis, and assisting digestion makes it highly necessary that this important secretion be frequently interrogated as to its quantity, and any decrease in the bile output given instant and vigorous attention.

This naturally raises the question, what is the best and most effective cholagogue? Many and various hepatic stimulants have been brought forward, but experience has shown that for promoting the functional activity of the liver nothing is superior to Chionia. This is an exceedingly effective preparation of Chionanthus Virginica. Administered in proper dosage it is a powerful hepatic stimulant. increasing the flow of bile. without. however, producing the marked and extreme catharsis that makes so many other hepatic remedies highly objectionable.

Clinical experience has shown that Chionia is therefore and exceedingly effective means of correcting intestinal disorders due to the shortcomings of the liver. In other words, its use can be relied upon to restore both offenders to good behavior.

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RAISING THE VACUUM IN YOUR TUBE.

Remove wire that connects the anode and anticathode, attach your negative wire to cathode, your positive wire to anticathode, leaving anode entirely disconnected. Use a small amount of current: in case of a transformer, about 5 ma. Run your tube in the right diretcion for about ten minutes, or until the tube begins to get warm. Stop your running on the first symptom of heat whether on the target or on the glass.

In case a transformer is used as the source of power, it is well to have your inductance switch on the low point; but sometimes a tube will run up quicker if an extremely high voltage,

low quantity current is used. In case an induction coil is used, it will not be necessary to put in as much as 5 ma.: 2 ma. will probably do it.

In case one running is not sufficient, allow the tube to cool for at least two hours: repeat the operation. Sometimes several runnings are required.

After a tube has been raised, it is policy to favor it for the next few exposures. If heavy currents are used immediately, the gas may be driven off a second time.

Never put the reverse current through your tube. The reverse current will probably raise the vacuum quicker than the way we indicate above but the chances are you will get a tube which will not give satisfaction, whereas if our method is followed, the chances are very favorable that you will get a perfectly good and satisfactory tube, and one that can be readily controlled.

BISMUTH AND ITS USES.

In the examiation of the stomach and alimentary canal, bismuth or barium in its various forms is used. In the earlier day sub-nitrate of bismuth was used almost exclusively. This has been superseded very largely by either sub-carbonate of bismuth, or barium sulphate.

The sub-carbonate of bismuth is very free from toxic properties, and is very opaque. Its only drawback is its large cost, it being considerably more expensive than barium sulphate. The latter is now very generally used, especially for hospital work.

Care must be taken to get a pure and reliable article. There are several brands on the market which are reliable and saisfactory.

Barium sulphate passes through the stomach in a much shorter time than does the bismuth sub-carbonate, and where a long stomach examination is necessary the latter will be found more serviceable.

The bismuth meal is usually prepared by mixing the desired compound with buttermilk, cream of wheat, apple sauce, or similar material, the meal being given immediately before the X-ray examination. The patient should, of course, be prepared so that the intestines are comparatively clear. For an enema, six ounces of barium sulphate are frequently used in from one to one and a half liters of warm water. Frequently an ounce of powdered gum-arabic is added to assist in keeping the barium sulphate in suspension.

Volumes can be written on this one subject alone. The above are intended simply as hints.

Yeast in the Treatment of Vaginitis. —Since the acid secretion of the vagina affords the most certain protection against infections, the clinician should be careful to promote this, rather than to destroy it by alkaline douches. The acid reaction of the vaginal secretions is the result of biologic processes. Since sugar offers an excellent medium in this respect, because it renders many germs, especially the usual inhabitants of the vagina, productive of acid, the sugar which is introduced in the yeast-treatment of vaginitis performs a useful purpose. In like manner the glycerin-treatment of this distressing condition is according to F. Kuhn (Centralblatt f. Gynaekologie, Bd?37. 1913. S. 228) of value because in the cleavage of the glycerin molecules acid products are likewise formed.

Emetine clears the liver of accumulated toxins. incites the digestive secretions, and jugulates many an unsuspected horde of amebic invaders.—Clinical Medicine.

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INDICATIONS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

(Continued from page 301 November Recorder)

MYALGIA.

In the eariler stages of simple muscular rheumatism, or when there is soreness and stiffness of the muscles, due to exposure, 1-6 to ½ gr. of Macrotoid, every one to two hours to effect, is usually a satisfactory remedy. This condition is usually due to autotoxemia, following absorption of toxins from the bowel and one of the primary indications is that the bowels be thoroughly cleared out and cleaned up through the use of Calomel and Podophyllin, followed by a saline carrying Lithium carbonate and Colchicine, with the sulphocarbolates subsequently. If there is joint involvement and pain is increased on motion, alternate Macrotoid with Bryonin, or if the fever is high and the pain is relieved by motion, alternate either of the above with Rhusoid. The Sodium and Xanthoxyloid combination is almost, if not quite, invariably indicated, as there is acidemia in a very large percentage of all cases. This should be given in full dosage at 10 A. M., 3 or 4 P. M., and at bed-time, and continued until the urinary acidity, as shown by the Harrower Acidimeter is at normal, 20 to 40°, or below the minimum, and then continued at less frequent intervals to maintain such effect. In addition to Macrotoid and Bryonin the following are frequently indicated as anti-rheumatics: Salicylic acid gr. 1; iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hy- ⅓; Stillingoid gr. 1-6; Colchicine gr. drobromide gr. 1-64; Aromatics q. s.: 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Aromatics, q. s.: or, Macrotoid gr. 1-30; Bryonin gr. 1-60; Colchicine gr. 1-1000; Rhusoid gr. 1-250; Strychnine arsenate gr. 1-250. As a local counter-irritant, Guaiacol grs. 40; Methyl salicylic grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1, with prior hot Epsom-salt sponge baths. With the subsidence of the acute symptoms, Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s., t. i. d. as a diuretic and eliminant; Salicylic acid gr. 1; iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hydrobromide gr. 1-64; Aromatics q. s., as an anti-rheumatic and eliminant every 4 hours, with a saline laxative carrying Magnesium sulphate with Lithium carbonate and Colchicine, on arising each morning. The sulphocarbolates and culture of Bacillus Lactis Bulgaricus should be continued, the latter succeeding, but not given in conjunction with the former, over a considerable time, in that the bowels may be kept clean. To relieve pain and control fever, the following is frequently indicated: Sodium salicylate grs. 2; Veratrine hydrochloride gr. 1-128; Colchicine gr. 1-128. As anti-

spasmodics and relaxants, the following have their specific indications: Gelseminine hydrobromide, Lobeline sulphate or Lobeline and Anemonin. As an eliminant, Colchicine is indicated in practically every instance.

MYXEDEMA.

Thyroid, in full dosage is indicated from the outset. Early in the use of this agent the patient should be in bed and on a milk diet, to which fish and poultry may be gradually added, the quantity of the latter to be slight. With the milk, the culture Bacillus Lactis Bulgaricus should be given freely, in that pathogenic organisms within the intestine may be inhibited in action. Calcium, Phosphorus, Iodine and Arsenic are indicated in most cases and the following meet such indications: The arsenates of Iron, Quinine and Strychnine with Nuclein, two after each meal, with arsenous Iodide gr. 1-64, at like time, every third week, instead. As variants the following: Calcium lactophosphate or Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4. Elimination by the skin and bowels must be stimulated. The following eliminants have their indications: Juglandoid; Leptandroid; Podophyllin; Calomel; a saline laxative carrying Magnesium sulphate with Lithium carbonate and Colchicine; or, Echinacoid gr. ½; Irisoid gr. ⅓; Rumicoid gr. ⅓; Alunoid gr. ⅓; Cascaroid gr. ½.

NEPHRITIS, ACUTE.

Elimination must be stimulated in all instances. If the kidneys are incapacitated, the bowels and skin must be stimulated to full action. The hydragog cathartics are indicated, as Calomel or Blue Mass and Soda, with Podophyllin, in small, fequent doses every third night, followed by morning saline. If ascites developes, Elaterium or Elaterin are indicated to quickly empty the bowel, with Apocynoid subsequently to maintain effect, to which may be added Boldine, to increase the output of urea. If uremia is present or threatens, Pilocarpine, hypodermically, with wet pack, to stimulate dermal elimination, with Veratrine to complete sedation, if this is required. As a tonic diuretic, Arbutin. To give support to heart and increase kidney function through increased blood pressure thereto, Digipoten, with Cactoid to regulate cardiac action. To relieve congestion, small doses of Aconitine and Hyoscyamine, with free use of the salines. Milk diet is the best, given in conjunction with the Bacillus Lactis Bulgaricus in full dosage. Support the heart for some time with Digitalin or Digipoten, gr. 1-64 or the former and gr. ½ of the latter, with Lithium benzoate gr. 1-6; Barosmoid gr. 1-6; Collinsonoid gr. 1-6; Arbutin gr. 1-6; Oil of Juniper m 1-24, as a diuretic, three or four times a day, until improvement is apparent. The dose of Digitalin or Digipoten may be doubled, if necessary. As diuretics the following are frequently indicated: Scillitin, which acts as stimulant to the renal organs; Barasmoid, which has the same action as has Buchu, from which it is derived; Sparteine, which is both a cardiac tonic and diuretic; Asparagin, which acts as tonic to the mucosa and is a diuretic; an antiseptic and diuretic, Hexamethylenamine, either alone or in one of the following combinations: if the urine is acid, Hexamethylenamine grs. 5; Arbutin gr. ½; Sodium benzoate grs. 5: or, if the urine is alkaline, Hexamethylenamine grs. 3; Arbutin gr. ½; Ammonium benzoate grs. 3.

NEPHRITIS, CHRONIC INTERSTITIAL.

Treatment should be based wholly upon the conditions found in the patient, and frequent urinalyses should be made. The patient should be placed on a milk diet with the Bacillus Lactis Bulgaricus, and elimination should be stimulated. If there is arterial ten-

sion, Glonoin or Veratrine are indicated to equalize the circulation, the latter probably being the preferable agent, in that its effect is more permanent. To increase elimination by the bowel, large enemas of decinormal salt solution, with Epsom-salt sponge baths to increase dermal elimination, and Boldine to increase output of urea. As diuretics, Arbutin, if there is albuminuria, or if cystitis complicates, Hexamethylenamine, either alone or in one of the folowing combinations: Hexamethylenamine grs. 5; Arbutin gr. ½; Sodium benzoate grs. 5, if the urine be acid; or, Hexamethylenamine grs. 3; Arbutin gr. ½ Ammonium benzoate, if alkaline. The heart stimulants, Caffeine and Digitalin for quick action, or Digipoten if effect is to be continued, act well in many cases as diuretics, through raising the blood pressure. The digestive compounds are indicated if gastric and intestinal functions are below par. If there is a tendency to intestinal fermentation the sulphocarbolates, with Bilein, are indicated and should be given to effect.

NEPHRITIS, PARENCHYMATOUS (CHRONIC DIFFUSE.)

Elimination should be stimulated and nutrition maintained. The diet should be non-nitrogenous, consisting of milk, either with or without Vichy or Seltzer water, cereal gruels and buttermilk. The latter preferably made artificially with Bacillus Lactis Bulgaricus. While the patient should rest several hours a day, it is essential that he have open air exercise, in that oxidation of the blood may be carried on better. While out of doors, the patient should be required to breathe deeply. A tonic is invariably indicated, probably the best one being the arsenates of Iron, Quinine and Strychnine with Nuclein. To secure elimination and for their alterative effect, exhibit Juglandoid gr. ⅓; Xanthoxyloid gr. ⅓; Boldine gr. 1-32, one-half hour before each meal. To determine renal function and permeability of kidneys, employ Methylene blue as a test agent. As a diuretic, Arbutin is frequently indicated. To equalize the circulation and overcome tension, Veratrine. The following laxatives are indicated at night: Cascaroid; or, Cascara Compound (Hinkle); or, Phenolphthalein grs. 1½; Senna grs. 1½; Sulphur gr. ⅔; Aromatics q. s., with the morning saline. The following may be found useful in many instances: Hydrastine hydrochloride gr. 1-64; Berberine hydrochloride gr. 1-64; Helenin gr. 1-12; Leptandroid gr. 1-6; Eupatoroid gr. 1-12; with Washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Carminatives q. s., these amounts, or double, t. i. d. For dropsy or ascites, follow out plan outlined in consideration of acute nephritis.

NEURALGIA.

Always determine the cause. Look to the eyes, nose, pharynx and external auditory canal for abnormalities; to the teeth for caries; to the urine for acidemia; the blood for malaria or syphilis; and determine if there are sexual excesses, or if the constant use of tobacco, alcohol or opiates may not be causative factors. May be due to nerve starvation with calcium or phosphorus deficiency. Elimination is invariably indicated, regardless of the exact cause, in every instance. The bowels should be cleared out with several doses of Calomel gr. 1-6; Irisoid gr. 1-6, at night with morning saline to effect, this to be followed by one of the following combinations: Washed Sulphur gr. 1-10; Strychnine arsenate gr. 1-250; Podophyllin gr. 1-25; Rheoid gr. 1-25; Carminatives q. s., double this amount, t. i. d., after each meal; or, Podophyllin gr. 1-6; Leptandroid gr. 1-6; Strychnine sulphate gr. 1-128; Capsicum oleoresin gr. 1-64; Irisoid gr. 1-6; Bilein gr. ⅛: or, Podophyllin gr.

¼; Leptandroid gr. ½; Irisoid gr. ¼; Nux vomica, extract gr. 1-16; Capsicum, powdered gr. ⅓, t. i. d. after meals. The sulphocarbolates, to insure intestinal cleanliness should be given with the above laxatives. To restore nerve tone and overcome Calcium or phosphorus deficiency, Nuclein, Neuro-lecithin, Calcium lactophosphate or Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m. 4. After the bowels have been thoroughly cleansed through the use of the sulphocarbolates, the Bacillus Lactis Bulgaricus may be substituted therefore. To relieve pain, the Hyoscine, Morphine and Cacoid compound, or modification thereof; Gelsemine hydrobromide; or Quinine valerate gr. ⅓; Aconitine hydrobromide gr. 1-800; Hyoscyamine sulphate gr. 1-1000, with one of the following ointments, followed by application of heat, locally: Oil of Turpentine m 8; Oil of Cloves m 10; Oil of Mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Menthol grs. 16; Ointment base q. s. to make oz. 1: or, Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1. Ethyl chloride spray to affected part and point of nerve exit, followed by application of last mentioned ointment and heat, will frequently bring prompt relief. If due to exposure, as wet or cold, Quinine hydrochloride gr. 1; Acetanilid gr. 1; Gelsemoid gr. 1-50; Aloin gr. 1-10; Podophyllin gr. 1-20, or Acetanilid and Quinine with Caffeine in dose to effect. If there is a rheumatic diathesis, the following frequently meets the indication: Salicylic acid gr. 1; Iodized Lime gr. ⅓; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Boldine hyrobromide gr. 1-64; Aromatics q. s.: or Salicylic acid gr. 1; iodized Lime gr. ⅓; Stillingoid gr. 1-6; Colchicine gr. 1-250; Bryonin gr. 1-128; Macrotoid gr. 1-12; Aromatics q. s. The saline laxative carrying Lithium carbonate and colchicine is also indicated in rheumatic cases. If there is acidemia the Sodium and Xanthoxyloid compound or Calcium carbonate grs. 10; Lithium carbonate gr. 1; Colchicine gr. 1-500; Aromatics q. s., have their indications. The latter combination is also indicated in rheumatic conditions. Treat the patient and conditions found, and not the disease name, in all instances.

NEURASTHENIA (NERVOUS PROSTRATION.)

The cause must be determined in all cases, in that treatment instituted may be rational. Metabolism, faulty in nature, may be the base of the trouble, as may faulty mode of living. The sexual problem frequently plays an important part in the etiology. There may be a phosphorus or Lime deficiency, with consequent lowering of nerve tonic. Constant worry may also be a cause. It is best, in practically all cases, that the patient be given a change of scene to some country place, where the surroundings are quiet, but cheerful. To sedate the nerves, when there is excitably, as well as to give them added tone, Strychnine valerate gr. 1-64 to 1-32, with Avenin gr. 1 t. i. d. meets the indication. To increase nerve tone, through the use of phosphorus, the following are indicated: Neuro-lecithin and Nuclein, or Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4. These may be alternated with each other or with the Strychnine and Avenin. In children the Strychnine may be replaced with Brucine. To overcome anorexia, Juglandoid or Quassoid. If there is hypochlorhyria, the following, after meals is indicated: Betain hydrochloride grs. 2; Pepsin gr. 1; Papain gr. ½; in hyperchlorhydria, Papain gr. ⅓; Charcoal (vegetable) gr. 1; Sodium bicarbonate gr. ⅔. Salt

sponge baths and saline enemas act to sedate. Exercise, of a graduated character, to bring about better metabolism, with deep breathing, particularly in the morning to insure better oxidation, should be practiced. The following nerve sedatives have their indications: Coniine, Caffeine valerate, Scutellaroid, Zinc phosphide, Solanine, monobromated Camphor, the bromides alternated with Neuro-lecithin and Nuclein if condition is due to overwork, Cypripedoid (for children and nervous women), or one of the following combinations: Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128: or, Quinine valerate gr. 1; Iron valerate gr. 1; Zinc valerate gr. 1; Extract Sumbul gr. 1; Scutellaroid gr. 1-6. Look for syphilis, and if found, institute specific treatment. If there is tic douloureaux, local application of the following ointment, well rubbed in, is indicated: veratrine grs. 5; Morphine sulphate grs. 5; lanoline drams 6; Olive oil drams 2, or the local application of Camphor-chloral may bring relief. Overmedication should be avoided if condition is due to overwork. The aims in treatment are to remove the cause, stimulate elimination, sedate when necessary, and to push recontructants, besides directing the patient in the right mode of living. Liquor Arsenii Comp. (Barclay) will frequently bring good results in obscure cases. If there is acidemia, the alkalis are indicated, and a course of the Sodium and Xanthoxyloid combination very frequently brings good results, as with the disappearance of toxins the nerve tone is retored.

NEURITIS.

A correct diagnosis must be made, invariably, and mineral and alcoholic poisoning excluded. Acidemia is frequently the base of the trouble and should be looked for in every case, through determination of urinary acidity. If this is found to be excessively high, or much below normal, stimulation of elimination is indicated, through the use of Calomel and Podophyllin with the free use of a saline carrying Lithium carbonate and Colchicine. These to be followed with the Sodium and Xanthoxyloid compound, in full dosage an hour before meals and at bed-time, with the sulphocarbolates to effect two hours after meals. Internally, to relieve pain, the Hyoscine, Morphine and Cactoid compound, or a modification thereof, folowed by Aconitine or Gelseminine with Colchicine, in minimum dose, every two to three hours. Locally, for like purpose, Epsom-salt compresses followed by application of Guaiacol grs. 40; Methyl salicylate grs. 40; Menthol grs. 3; Lanum and Petrolatum q. s. to make oz. 1. If there is tuberculosis the following is frequently indicated; Nuclein solution m 10; Guaiacol carbonate gr. 1; Iodized Lime gr. ½. As tonic reconstructants, Nuclein and Neurolecithin, or Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4. The following may be employed to relieve pain and sedate the circulation: Caffeine gr. ½; Sodium bicarbonate gr. 1; Acetanilid grs. 3½: or, Acetanilid grs. 2; Veratrine hydrochloride gr. 1-128; Ammonium bicarbonate gr. ⅛. If of syphilitic origin the following are indicated: iodized Lime, or Mercurous iodide gr. 1-12; Stillingoid gr. ⅓; Strychnine arsenate gr. 1-64; Iron arsenate gr. 1-32; Quinine arsenate gr. 1-32; Quinine arsenate gr. 1-32; Nuclein solution m 5: or, Mercuric iodidt gr. 3 64; Arsenous iodide gr. 1 64; Iodoform gr. ½; Phytolaccoid gr. ½: if of rheumatic origin, the salicylates are indicated: in malarial cachexia, Quinine ferrocyanide; Zinc phosphide to assist in restoration of nerve tone. While its exact action is unknown, chromium sulphate, has given good results. Both in

anemic and leutic cases, Liquor Arsenii Comp. (Barclay) has its indications.

NIGHT TERRORS (NIGHT MARE).

Usually due to either faulty digestion or elimination, or may be caused by insufficiency of Lime or Phosphorus. In many instances thorough clearing of the bowels with Calomel and Irisoid, with salines and followed by the sulphocarbolates to effect, with the additio of a digestant, will bring speedy relief. If there is Calcium insufficiency, as well as phosphous, the following meets the indication: Iron phosphate gr. 1-12; Calcium phosphate gr. 1-12; Potassium phosphate gr. 1-12; Magnesium phosphate gr. 1-12; Nuclein solution m 4, double this amount t. i. d. Sedatives may be required in some cases, and among those recommended are the following: for children, Avenin gr. ⅓ to 1 with Scutellaroid gr. 1-6 to ⅓ when retiring, or Hyoscyamine sulphate gr. 1-2000; Monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajuput, with Oil of Anise and Menthol q. s. Adults may be given small doses of Hyoscyamine with caffeine valerate, Nickel bromide, or Quinine valerate gr. 1; Iron valerate gr. 1; Zinc valerate gr. 1; extract Sumbul gr. 1; Scutellaroid gr. 1-6. If due to intestinal parasites, the following are indicated: for lumbricoides, Santonin and Calomel, or Chelonoid gr. 1-6; Santonin gr. 1-10; Podophyllin gr. 1-32, either to be given in such dosage as will procure effect: for tape-worm, Malefern oleoresin drams 2; Chloroform m 0; Croton oil 9 m 4; Glycerin q. s. to make ozs. 2. Look for and correct acidemia.

NIGHT SWEATS.

Invariably secondary to some other condition, which latter must be discovered and corrected. The general vitality should be raised in practically all cases. Atropine will almost invariably stop the sweating, but it is undesirable in some cases. If due to phthisis, Agaricin and Picrotoxin will relieve. The circulation should be supported through the use of Cactoid and Strychnine with Digipoten, and when vitality is particularly low it is well to give the patient light nourishment during the early morning hours, for which he should be aroused at 3 or 4 A. M. A complete body rub with alcohol followed by dry salt towels to a "glow" is frequently useful.

NYMPHOMANIA.

Look for cause, both locally and generally. If due to long, tight prepuse, circumcise, and free hooded clitoris. Intestinal parasites may be the cause and should be looked for. Lack of proper elimination is another cause worthy of notice. As systemic antiseptics, if due to toxemia, Calcium sulphide and Salicin to saturation. As eliminants, where there is plethora, the salines with Colchicine. In the acute form, Apomorphine or Emetine hydrochloride, hypodermically to emesis, may correct. The folowing sedatives have their indications: for their general effect, Camphor monobromated, Lobeloid to relaxation, Hyoscyamine, Solanine, the bromides, the Hyoscine, Morphine and Cactoid compound in modified form. If there is pelvic involvement the following nervine and sedative: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutellaroid gr. 1-12, in full dosage, with Quinine valerate gr. 1; Iron valerate gr. 1; Zinc valerate gr. 1; extract Sumbul gr. 1; Scutellaroid gr. 1-6, these being particularly indicated in the cases of very nervous women. The following nervine has its uses: Gold bromide gr. 1-250; Arsenous bromide gr. 1-250; Nickel bromide gr. 1-16; Strychnine valerate gr. 1-128. Anticipate and look for acidemia or other sign of faulty elimination and correct.

OBESITY.

Diet should be regulated. Starches

and sugars should be prohibited and other fluids reduced to the lowest possible point, the latter to be acidulated with Lime or lemon juice. No fluids with meals, or as little as possible. Exercise, gradually increased, with a gradual increase of diet to point of balance. The culture of Bacillus Lactis Bulgaricus, with the sulphocarbolates, alternately, week in and week out, two hours after meals to insure cleanliness of the alimentary canal. As fat reducers, Colchicine gr. 1-250; Strychnine sulphate gr. 1-64; Berberine hydrochloride gr. 1-64; Caffeine gr. 1-6; Apocynoid gr. 1-6; Alnuoid gr. 1-6; Phytolaccoid gr. ½; Oil of bitter orange peel and Aromatics q. s., with the possible addition of more phytolaccoid, or Irisoid in some instances, this to be alternated with Thyroid and iodized lime, and full doses of a saline carrying Lithium carbonate and Colchicine. The following alteratives and eliminants may have their indicatons: the iodides, Pilocapine, Potassium permanganate, Rumicoid and Mercuric iodide. Always remember that the over-fat individual is usually over-fed and under-exercised and that there is a lack of proper oxidation.

OPHTHALMIA.

The cause should always be determined, in that proper treatment may be employed. Stimulation of elimination is usually indicated, the salines following Calomel, being the remedies to employ. As an alterative, iodized Lime. As a general systemic antiseptic, Echinacoid, with Aconitine in minute dose to control temperature and equalize the circulation, and Nuclein solution to reinforce the leucocytes and combat infection. To relieve pain, small doses of Atropine or the Hyoscine, Morphine and Cactoid compound. The arsenates of Iron, Quinine and Strychnine with Nuclein in struma. The eye should be kept clean through the instillation of a 25 per cent solution of hydrogen peroxide, followed by a solution of boric acid grs. 10 to 15 and Zinc sulphocarbolate grs. 2 to 4 to one ounce of water. In gonorrheal cases the eye should be treated with instillations of a solution of mercuric chloride, gr. 1 to the ounce of water, and later there should be applied a 15 to 25 per cent yellow oxide of mercury ointment. Silver nitrate or Potassium permanganate solutions may be employed instead of the mercuric chrloroid. To relieve corneal infiltration the absorbents, iodized Lime or the iodides, are indicated. In the gonorrheal form the Gonococcus-Bacterin is indilated in all cases, while in other infections autogenous bacterins, based upon bacteriologic findings may be used with benefit.

OVARITIS (OOPHORITIS)

To relieve congestion and pain, small doses of Aconitine and Hyoscyamine, or the Hyoscine, Morphine and Cactoid compound, alternated with macrotoid. For tenderness, Viburnoid, Alunoid or Colocynthoid, with hot antiseptic douches and depleting suppositories (glycero-gelatine-magnesium) locally, and the following inunction over the site of the ovaries externally: Oil of Turpentine m 8; Oil of Cloves m 10; Oil of Mustard m 4; Guaiacol grs. 4; Camphor grs. 20; Capsicum oleoresin grs. 5; Menthol grs. 16; Ointment base to make oz. 1. As a uterine tonic the following: Aletroid gr. 1-12; Bryonin gr. 1-500; Caulophylloid gr. 1-6; Macrotoid gr. 1-6; Helenoid gr. 1-6; Hyoscyamine sulphate gr. 1-2000, every 3 to 6 hours will frequently give relief in atonic cases. As a uterine tonic and nervine, every 3 to 6 hours, the following is useful in nervous cases: Helenin gr. 1-12; Viburnoid gr. 1-12; Dioscoroid gr. 1-6; Gelsemoid gr. 1-250; Avenin gr. 1-6; Scutelaroid gr. 1-12. To equalize the circulation, single doses of the following at 9 or 10 A. M. and 3 or 4 P. M., with a double dose at bed-time: Aconitine hydrobromide gr. 1-800; Dig-

italin gr. 1-64; Strychnine arsenate gr. 1-128. A triple dose, even, may be given at the latter hour. The following antispasmodics have their indications: Gelesmoid, Gelseminine, Cannaboid, Ergotoid with Solanine, and the bromides.

PALPITATION.

Invariably give consideration to the cause prior to institution of treatment. In those forms due to excessive use of tobacco, coffee, to nerve strain or other excesses, Cactoid, alternated with monobromated Camphor and Zinc valerate. Digitalis and its preparations are not indicated in this form, as they do not overcome paroxysms. If due to flatulents the elminants and carminatives are indicated, among those which meet this indication are the following: Menthol, or Calomel gr. 1-16; Sodium bicarbonate gr. ¼; Emetoid gr. 1-128; Bismuth subnitrate gr. ½ Aromatics q. s.: or, Hyoscyamine sulphate gr. 1-200; monobromated Camphor gr. 1-64; Scutellaroid gr. 1-32; Oil of Cajuput, with Oil of Anise and Menthol q. s.: or, Sodium carbonate gr. 1; Sodium sulphocarbolate gr. 1; Emetine hydrochloride gr. 1-1000; Hydrastine hydrochloride gr. 1-32; Berberine hydrochloride gr. 1-32; Rheoid gr. 1-6; Aromatics q. s.: or, Sodium carbonate gr. 1; Sodium sulphocarboate gr. ½; Juglandoid gr. 1-6; Aromatics q. s. If due to an over-loaded stomach, the indication is for hypodermics of Apomorphine to emesis, with enemas of soapsuds to clear bowel. If there is high arterial tension, the indication is met by Glonoin, followed by Veratrine to maintain effect. To overcome anemia, the Chalybeates, with or without arsenic and the defibrinated blood combinations. In the face of plethora the eliminants, as Calomel and the salines, are invariably indicated and should be used to effect. In arteriosclerosis, iodized Lime is indicated as an alterative and absorbent, with Digipoten, followed by Cactoid, or these alternated, to support the heart action. In dyscrasias, general debility, a long course of Liquor Arsenii Comp. (Barclay) is frequently indicated and gives good results.

(To be Continued)

PROVINCE of the PHYSICIAN

AMOS SAWYER, M. D
Hillsboro, Ill.

The province of the Physician is to see, hear and say nothing to others.

It is the province of the physician to be cheerful and hopeful in the presence of his patient. When we think the chances are against recovery then it becomes our duty to impart this opinion in such a delicate manner as not to excite, but to enable him, if necessary, to attend to his temporal and spiritual affairs while he is mentally capacitated to do so. In doing this don't follow the Irish section hand's example. One of the men were killed and while discussing how his wife was to be informed of the fatal occurrence, one of the "gang" said he could do it in such a "delicate" way that she would not realize her loss until six weeks after the funeral. He was sent on the mission while the others followed with the remains. He met the woman at the door and greeted her with: "Good morning, Widdy Murphy." 'I'm no widdy I give you to understand." "If you say that, you're a damned liar for they are coming around the corner of the house wid the corpse."

The province of the physician is to see that his patient is properly nursed; that his directions have been faithfully followed; note how many doses of the medicine should have been administer-

ed and how many have been given, and you will frequently find that the nurse's report and the remainder of the medicine do not agree, or if they do, the question arises, how many went into the patient and how many into the slop-pail, if an unprincipled nurse is employed.

It is the province of the physician to assist nature when in need of his aid remembering that she alone can cure disease, medicine being useful as an adjunct. Nature can cure intermittent fever, but quinine assists her in ridding the system of the poison in a shorter time. Night sweats weaken the recuperative powers of nature, which in many cases seem to be beyond her power to cure. It is then, as in other cases, the physician steps in as a necessary aid; and so on to the end of the list, but step in with the right kind of a weapon. Don't doctor night sweats alone, but the condition inducing them.

The province of a physician is to save life not destroy it. With this object in view the practice of medicine is a noble, a Christian one, this is evidenced by the fact that our Lord and Saviour Jesus Christ, healed the sick, touched with His blessed fingers the eyes of the blind that they might see and the ears of the deaf that they might hear, restored the withered muscles of the paraletic, thus proving that ours is a God favored profession. He said: "They will have no need for a physician but those who are sick." By this we see that He not only sanctions the practice of medicine, but declares that the sick need our assistance. Did he ever practice law or advise his followers to employ a lawyer? On the contrary He said: "Woe unto you ye lawyers for ye laden men with burdens grevious to be bourne, and ye yourselves touch not the burdens with one of your fingers. Woe unto you ye lawyers, you have taken away the key of knowledge; ye enter not in yourselves, and them that were entering ye hindered." (11th Chap. St. Luke; 1st Corinth. 6th verse.)

The province of those who are practicing this Divinity established healing art is to save and not destroy life, let us consider the enormity of the crime of abortion directly or indirectly brought about by the physician. The law of our land sanctions the slaughter of a child in cases where mother and child must otherwise perish (now thanks to skillful surgery no longer necessary). More strictly speaking it is not murder to kill a child before it has been separated from the mother but is manslaughetr. That "While it is unborn it has no separate existence." That is this interpretation in a large measure, is due to the wholesale slaughter of unborn children and to my mind is a settled fact in the fact of Gods' command: "Thou shall not kill." Surely it is no light thing to delegate to a hand the right to plunge a rod of steel into a human brain or rupture a membrane with the intention to destroy a life that alone belongs to the creator. That the mysterious life that energizes the chemical combination that we call flesh and blood and to which it gave birth—that something that warns us as we walk and rebukes us when we stray, that this something has a separate existence from the time of conception, though dependent upon the being that contains the receptacle designed for it during the first nine months of its existence, there can be no doubt, for as far as the assimilation and deposition of the materials necessary for the maintenance of its physical life and material growth are concerned it is fully as independent before as after birth, for all the potential qualities of a human being once existed in the gem plaxma of the cellnuclei from whose union the future being developed. It is a distinct human life with the developed and undevelop-

ed physical and physical properties for such a being to possess and therefore is entitled to the same legal protection extended to those who have been born into the world.

(Query) Why should our age not date from the time of conception instead of birth?

A Texas drop assassination is a braver act than to kill in its mother's womb an unborn child that can neither get out of the way or call for help, as could a bottling two year old and thus perchance bring to its aid some friendly staying hand. In this case an infuriated mob would hang the perpetrator to the nearest post or tree, while in the other these same men pass the act by with a smile.

It is the province of the physician to make it plain to the abortion applicant the enormity of the crime to which she asks you to become a party, not only in your own strong language but in that of the Almighty God, "And Jesus called a little child unto Him and set him in the midst of them and said: 'And who shall receive one such little child in my name receiveth me; but who shall harm one of these little ones, it were better for him that a millstone were hanged around his neck and that he were drowned in the depth of the sea.' No murderer can enter the kingdom of Heaven." And an abortionist is the sneakenist and most cowardly murderer that ever lived.

It should be the province of the physicians to treat their fellow practitioners fairly and not try to build himself up by abuse, misrepresentation or criticism of his predecessor; practice Christ's "Do unto others." We find lots of our brethren like the bank director when it was asked, "Was he honest," the reply was, "That depends whether you mean Godward or manward. God-ward Mr. Blank is honest, no man in our church is stronger in the faith, prays oftener in our meetings or is more benevolent according to his means; but man-ward I am sorry to say, Mr. Blank is rather tricky, in other words, was not honest for to be God-ward honest, we must be man-ward honest.

Half a century ago a Hillsboro doctor was picking out some shot from a man's leg near Bost Hill church. Quite a number of the neighborhood women had come in to witness the operation, when some one who had been in feeble health for some time, fainted and it was some time before she recovered. One woman said, "I've seed a lot of people faint but that was the worst I ever seed." At this the doctor turned a withering glance at the speaker, said: "It's a good thing I was here or she would have died. She did not faint, it was a case of profound syncope, the words of profound and syncope were stunners and silenced the old woman. It was easy enough to bring one out of a faint but it took the best medical knowledge to cure a case of "profound syncope" and it put a feather in his cap, the feather he had used in many previous occasions and added no little to his practice in that neighborhood.

I am glad to say that at present few members of the medical profession die the fishermen's natural death. A few years ago Capt. Bill Massey, an old Missouri river pilot took a steamer from St. Louis to Kansas City, arriving there he hailed a fishermen he knew, "Where's your partner?" "Dead." So I heard Bill reply. Killed dynamiting fish? "No sich thing, he died a nat-er-al death, whiskey killed him."

Confucius said: To know what you do know and not to know what you do not know is true wisdom." This is what doctors lack for it could put them out of business. Cicero said: There is nothing in which men so approach the gods as when they try to

give health to other men." Who are more ardent in advocating and originating public health measures than the members of the medical profession although it cuts their daily revenue. Name another occupation where the members do the same thing. They contribute more to charity than any other class of people.

A negro when speaking about his dead master said: Marsa John not good enough for Heaven but too good for hell. Dars a place next do to heaven dey eat, drink when dey want it, cuss a little, and are happy." Doctors are too good for hell, so Lin-com-pinch must be full of those who failed to pass the heavenly examining board.

The physician sees more of human life than anyone else; he sees it when it enters this world of woe and watches over it from infancy to manhood when struggling with disease, as well as the interplay of what in this world will ever be a mystery, that which makes the man—mind and matter. When ministering to a little child if you remember the divine words of our Saviour and do it in His name when you stand at the judgment seat of Christ methinks I can hear him say, "I was sick and ye visited me, enter into thy eternal rest."

WHERE TO WORSHIP GOD

J. W. LOCKHART, M. D.
St. Johns, Wash.

The place to worship the eternal God
Is where the soul can best commune
With the subjective sense of grosser self,
And radiate its benign influence
To the objective facts of present life.
Sensitized to the radiance of hope,
The life for worldly things and carking cares
Sinks in the vast abyss of nothingness.
The soul transformed by ecstacies divine,
Concentered on the jewels of the Cross,
May rise from gloom to brightest points of light,
In visions of a majesty sublime.

The place to worship the eternal God
Is in the sombre forest's solitude,
Deep and vast—breathing in inspiration
From the circumambient atmosphere,
Love-ladened with Nature's sweet perfumes,
Distilled from the ever vernal bloom of earth
In the crucible of divine affection;
A balsam for the healing of the soul
Prostrate with the delusive charms of sin;
Where, scorched by the burning bush of thought,
The weary soul, by deep contrition led,
Freed from its baser sense of earthly forms,
Holds sweet communion with the Infinite.

The place to worship the omniscient God,
Is in the busy haunts of thoughtless men,
Where, rushing madly up the gentle slopes,
And down the steep declivities of life,
Some choose so well the way of love and truth.
Another some, still heedless of the end,
Scorning the beacon light of love and truth
Flaming from the radiant cross of Christ,
For their salvation, and the world's rescue
From the thraldom of Hate's environment,
Rush madly on to an accursed doom;
And unprepared to meet their offended God,
Must spend eternity in hell's remorse.

The place to worship the omnipotent,
Is where the world of sentient nature, long
Teeming with the multifarious forms of life,
Brings order from the embrace of Chaos;
Where Confusion is worse confounded
By the divinity that shapes the end
Of all the heart's desire and mortal hopes;
Where vibrating echo sports with echo,
And the keen-scented ruminants, alert,
Browse the tender tendrils of the vine
Unscared, save by the jackal's stealthy tread,
Or by the lion's terrifying roar;
Where brooklets sing perpetual melodies
To the panoramic multitudes of life

That crowd the amphitheater of hills—
Nature's own temple to the living God,
Unscarred by the puny hand of man.

The place to worship the omnipotent,
Is where Earth's rock-ribbed foundations,
Unheeding of the onward march of Time,
Their Sphinx-like forms from prehistoric age,
Rearing their proud heads in bold defiance,
Repells the onward crush of ocean waves;
Where force contends with awful force sublime,
Where atoms groan and shriek, and billows roar
Incessant thunders at the battlements of earth.

The place to worship the eternal God
Is under the dome of ancient mosque,
Century crowned; hoary with the frosts
Of many years; resplendent with the God
Thoughts of many generations gone to rest,
Weary with life's incessant, cruel strife,
But buoyant with the hope of better things
Beyond the confines of space ethereal.
Kneeling at its altars, tear stained and worn,
In the deep, o'er powering solitude
Of the soul's abstractions, soft voices seem,
From the bourn of all terrestrial things,
To roll in undulating wave on wave,
Sweet anthems in the vestibule of heaven—
Until the soul, transfigured by the Cross,
And all unmindful of the time and place,
With trembling accents joins the chorus of,
"Nearer my God to Thee, nearer to Thee."

The place to worship the eternal God
Is where the great miracles of nature,
Unheeded by the indolent procession
Of human clods march in majestic mien,
Rank upon rank, phalanx upon phalanx—
Mysteries of God's love, unfathomed by
The discordant philosophies of earth;
Where earth born atoms cling to molecules,
And molecules to shapes infinitive,
And all the vast protean forms of life,
Marshaled in the order of their being,
Invalidates the testament of death,
And in unrivaled splendor clothes old earth
In vernal green, and decks her fair bosom
With jewels magnificent, love garnered
From the great diamond fields of God's mercy
And scattered by the lavish hand of Love,
To lure the sinful soul from death to life;
Where sun-kissed Death, bedewed with Nature's tears,
Touched by the spirit of the Infinite,
Proclaims the resurrection and the life
Of all things mortal; where, beyond the ken
Of human intellect, death becomes life.
Changed by the unknown and unknowable,
The miracle stupendious stands unsolved
Before the fierce advance of science,
And, by the finer alchemy of thought,
Bids proud defiance to the critics who
Dishonor God, and bring reproach on man.

The place to worship the eternal God,
Is where manly men meets man as brother;
Affection, uneclipsed by pride or hate,
And soul unites with soul, in strains of love,
To lift the cross and make each burden lighter.

ELECTRICITY and its APPLICATION in MEDICINE

ZACHARIAH. G JONES, M. D. Kansas City, Mo.

(Continued from Page 311 November Recorder)

Case No. 4:

Mr. D., occupation farmer, a native of Oklahoma, had had gonorrhea about five years before from which he never fully recovered. About four years ago he had an attack of mumps which "went down" and he suffered a severe attack of epididymitis. About two years ago he contracted gonorrhea again and it worked its way into the testicle and he suffered another severe attack of epididymitis. After this he decided to get married. His wife has, since that time, undergone three operations for removal of ovaries and adnexa, and about three months before he applied to me he and his wife had some domestic trouble and decided to separate. Again he contracted gonorrhea and it was complicated with epididymitis from which he failed to get relief under the care of his family physician. He came to this city for treatment and went under the care of a quack and after three or four days treatment with medicines he continued in agony and called another physician. This last medical adviser turned him over to me for electrical treatment. He was suffering intense pain when he applied to me but after the first treatment he said he felt some relief. I directed him to return to my office the following day, which he did and reported a good night and very little pain. After the second treatment he told me that all the pain had subsided and he was able to walk about with ease. I treated him one week and he was feeling so well that he asked permission to go home for a few days and, while I recommended further treatment, I consented to his making the trip. He did not return for further treatment, however, but wrote that he was feeling alright and had not had any more trouble.

Case No. 5:

Mr. E., occupation, clerk, a native of Kansas City contracted gonorrhea and as usual began to treat it with patent medicines but as he became rapidly worse instead of better he applied to me and asked me for "quick relief." I advised him to be patient and give me time to do it right but he insisted that he must have immediate relief so I began to treat him with electricity and medicine combined. The organ was badly swollen and he told me that the pain on urination was almost intolerable. His first call to my office was on Saturday forenoon, after the first treatment I directed him to return the same afternoon so that I could give him another. At his second call he reported that the swelling had about gone and there had been no more pain on urination. I directed him to return again the same evening, which he did and reported feeling well, and said that he had not suffered any more pain and the swelling had almost completely subsided by this time and the discharge was now almost clear instead of thick and yellow as it was in the forenoon. I directed him to return the next (Sunday) forenoon, which he did and made a favorable report. I warned him to keep quiet several days but Monday morning he acknowledged that he had disobeyed my directions and played ball on the afternoon before. I threatened him with dismissal but he agreed to follow my directions if I would continue treatment. I decided to give him one more chance and he continued treatment regularly for one week. He had not had any more pain and all the swelling had subsided

and the discharge was almost clear except the first in the morning he said was somewhat purulent. I gave him a simple wash of 1½ drs. phenol, glycerine 1 oz. and water 1 pint, and told him to use it as an injection three or four times a day. He reported about three weeks later with a severe urethritis. He said the watery discharge had not completly stopped and some one had told him to inject a solution of alum, which he did, but said it made him very sore. I asked him how strong he had made the solution and he told me that he had put 5c worth in a pint of water. This made, I presume about a saturated solution. I treated him several times for this inflammation which he had set up with his alum and directed him to continue with the injection that I had given him. Two weeks later he reported that all the discharge had stopped and he didn't know that he had ever had gonorrhea.

Case No. 6:

Mr. F., a teacher, a native of New Mexico, had overworked himself while prosecuting his vocation as Principal of a High School, and as a result had suffered a nervous breakdown. The chief symptoms of which he complained when he applied to me were nervousness, sleeplessness, loss of appetite, headache, general aching pains throughout his body, flighty spells, constipation, seminal emission, or sexual neurasthenia, tired feeling, pain in the back, some indigestion. He said he had been under the care of a physician in New Mexico who had been giving him bromides but instead of improving he said that he got worse. I will insert here this advice; i. e., to let bromides severely alone, for they are the most dangerous drugs that we have in such cases. I placed him under treatment on condition that he would continue for four weeks and carry out my instructions to the letter. At the completion of treatment he told me that he was feeling exceptionally well and all of his symptoms had subsided except occasionally a slight emission. One month after his return home he wrote to me, as I had directed him, and he said that he felt better than he had felt for several years.

Case No. 7:

Mr. G., clerk, age 43, a native of Kansas City, applied to me for treatment for neuritis of the right foot. The foot was somewhat swollen and red, and caused him considerable pain and he was hardly able to walk upon it. I placed him upon daily treatment with the Morton wave for twenty minutes and followed with positive spray for ten minutes and after the first treatment the pain had almost subsided and he said he could walk much better. He did not experience very much pain after the first treatment although I continued treatment daily for eight days and all indications of his trouble had disappeared and I excused him.

Case No. 8:

Mrs. H., age 20, a native of Missouri, applied to me for treatment for stomach trouble. In questioning her I found that the stomach symptoms were the most prominent but that there was an underlying cause for them. She was extremely delicate and very nervous and further questioning brought out the following symptoms: Dull pain in lower part of the spine, shooting pains and soreness in lower part of abdomen especially in the region of the ovaries, also pain in the back part of the neck and head, constipation, intestinal indigestion, loss of appetite, shortness of breath and scanty menstration which was very painful, chiefly clotts, and extending over a period of more than a week, also yellowish vaginal discharge which at times was quite profuse. Upon examination I found prolapsed and enlarged right ovary, prolapsed uterus which had also fallen back and was slightly enlarged and very tender. She

had a copious muco-purulent discharge. I began treatment to remove the soreness. After this had pretty well disappeared I began to replace the uterus and ovaries and to treat the endometritis which was causing the discharge and painful menstration. The discharge began to subside after the third or fourth day and then I added treatment for the constipation, and nervousness, and pain in the head and spine. I continued three weeks and excused her, as all the symptoms had disappeared, but advised her to take a rest for several weeks. One month after she had completed treatment she reported to me that she was feeling quite well and was able to take care of her household duties without very much discomfort except she was yet somewhat weak, but at this time she was so much improved that she said she felt as well as she ever did in her life.

Case No. 9:

Mrs. I., age 56, a native of Kansas. Had suffered a severe nervous breakdown several months before from which she failed to recover, with the use of medicines. When she applied to me she complained of a complication of symptoms of which nervousness, loss of appetite, empty feeling in the abdomen, gas in the stomach, constipation, pain in the back part of the neck, headache general weakness tender spots along the spine, excrutiating pain in the neck of the bladder, dry burning sensation in the mouth, sleeplessness, and nocturnal dreams. When she applied to me she was very weak and did not feel like trusting herself out alone. On examination I found an inflated and tender abdomen, and in fact she was so tender over the entire body that the slightest touch would cause her to offer resistance. All this and many of her other symptoms were due to nervousness, but in the examination of the bladder I found an elongated papillomatous tumor just inside of the internal opening to the urethra, which would fall across from the urethra and cause the pain, or part of it, and sometimes a sudden stoppage of the urinary flow. In considering her case I was somewhat reluctant about accepting it, but she was a woman of considerable intelligence and conservatism, and experience and I agreed to put her under treatment with the understanding that I only anticipated partial relief. After she was under the treatment about one week she came to my office alone, which was more than two miles from her boarding place. She began to sleep better and the bowels became regular every day. As soon as I thought prudent I removed the tumor from the bladder by electrolysis which gave her a great deal of relief. She continued to get stronger and did not complain of any more pain after the bladder had healed following the operation. After the third week of treatment I removed the restrictions from her diet list, and, although, she still complained of some stomach symptoms she could eat almost anything that she desired with a reasonable amount of comfort. She was so much improved at the end of six weeks that I excused her.

Case No. 10:

Mr. J., age 38, a native of Kansas, occupation farmer, gave me a history of having had three attacks of gonorrhea in 1899, 1910 and early in 1914 respectively. He said the second attack left him with a stricture which he thought was partially due to the strong medicines which a druggist had prepared for him to use for injection. He was quite nervous and also constipated. On examination I discovered two strictures in the urethral canal, and a congested and enlarged protate. I placed him on treatment and within ten days the constipation was apparently removed, I was then able to pass a No. 24 olive into the bladder without any trouble. After this I directed my treatment

chiefly towards the prostatic trouble and the distressing symptoms began to disappear about the fourth week, which was the second week of treatment for the prostatic disease. This man was contemplating matrimony immediately following treatment but by my persistent efforts I was able to induce him to defer it for a while, or i. e. he promised me to put it off for at least one year and then to submit himself for examination to determine his fitness. So far, to the best of my knowledge, he has obeyed his promise.

Case No. 11:

Mr. K. age 38, occupation farmer, a native of S. D. Contracted gonorrhea about two years before consulting me from which he never fully recovered. After the acute symptoms subsided he had a sero-mucus discharge and some pain about the cut-off muscle, and the urinary flow was pinched. He underwent a course of treatment for this condition about one year after having the original attack of gonorrhea but without success, and sometime afterward he was advised that the discharge was harmless and he made preparations to get married. He still held out hopes that a cure might be awaiting him somewhere so he applied to me for electrical treatment. I examined the urethral canal and prostate gland and discovered a small stricture about 1½ inches behind the glands penis, and when I reached the prostate I found it swollen and congested. I began treatment with the view of relieving the prostatic congestion and after a few days he divulged his matrimonial intentions and asked me if he would be well enough to consumate the marital relations in about two or three months. I examined the prostatic excretion microscopically and found numerous gonocicci present. I frankly informed him that to get married to an innocent girl would be criminal and disastrous to a happy wedlock and destructive to the health of his intended bride. He asked me about how long it would be before he could enter into the marital relationship safely and I advised him to defer it at least one year and to have a thorough examination by a competent pathologist before naming the day. He showed signs of being sincere and promised me that he would take my advice. I treated him twenty days and the prostatic congestion had apparently disappeared and all urethral discharge had subsided. The small stricture hal also been destroyed. He said he felt much better and did not have that uneasy feeling that he formerly experienced.

Case No. 12:

Mr. L., age 47, occupation furniture dealer, a native if Kansas. The following case is one which has always been looked upon as an incurable malady and when a patient was found to be afflicted with it all hopes vanished and nothing but invalidism, with a dark cloud to shade the future and death to mark the end. The disease to which I refer is Locomotor Ataxia. The statement has been made by some of the best authorities that to succeed in stopping the course of the disease would be considered a medical victory, to say nothing about bringing about an improvement.

When he first applied to me for treatment he gave me a history of having been under the care of other physicians at his home town and at one of our popular health resorts, altogether for about five years, but he said that he could not see that he had made any improvement but believed that he had steadily grown worse. One of his former council had diagnosed his case as typhoid fever and one called it neuritis, one had told him that his trouble was spinal irritation, and another confessed that he did not know what the ailment was.

I first saw the case in consultation

with another physician and we satisfied ourselves beyond a doubt that the trouble was locomotor ataxia. All the signs and diagnostic tests were present, and by studying the case carefully there could be no doubt of the correctness of the diagnosis. The other physician decided to act as my collaborator in the treatment of the case.

When we began treatment he could not walk about more than a few steps and would then stagger like a drunken man. Most of the time when he went anywhere or if ascending or descending a stairway he was obliged to solicit the services of another person and sometimes two assistants were necessary to help him along. He could not walk across a room steadily nor look up without falling. He was obliged to come to my office in a vehicle. After he was treated one month he could walk across a good sized room and follow a straight line, and could walk to my office alone, which was about one mile from his boarding house. We excused him from treatment for one month with the understanding that he was to return for further treatment at the expiration of that time. After he had completed the second month's course of treatment he could close his eyes and walk across the room, and would go out for a long walk every day. He could also stand on the sidewalk and look up to the top of 16 story buildings without any trouble. He now walks almost erect and without very much staggering and shows very few signs of ever having been afflicted with such a grave malady as locomotor ataxia.

At any rate this case has perceptably improved which according to the authority referred to above is more than could be expected. Can it be called a "medical victory?"

Although, as I have said this disease has almost always been looked upon as insurable and uncontrollable, and going on to a slow but sure and fatal end. It is evident, however, that it can be controlled if properly treated and life prolonged if the disease is not eradicated altogether.

Case No. 13:

Mrs. M., age 45, a native of Germany. Applied to me for treatment for injuries received by falling. She had symptoms of internal injuries and apparently of the female organs. But the most prominent symptoms to her were excruciating pain in bladder so much so that it was almost intolerable and necessitated her resorting to the use of morphine for relief, and then after repeated doses the agony was only partially abated. There was also considerable discharge from the bladder. On examination I found a badly prolapsed uterus and right ovary. The uterus was considerably enlarged and after careful investigation I discovered a fibroid tumor about the size of an orange on the anterior wall. There was some enlargement of the prolapsed ovary and it too was very tender. I called in another physician to examine the patient, not because I was at all doubtful about the diagnosis but as it was a serious case I was glad to have another physician's opinion before going on with the treatment. The consultant corroborated my findings however and I proceeded to treat the bladder trouble as it was the most painful part and relief was apparently urgent. After the bladder symptoms had disappeared, I began a regular course of treatment for the removal of the tumor. My process was to treat her a few weeks and then suspend treatment so as to give nature an opportunity to take care of the tissues and then I would resume treatment, I treated her, at intervals, for a period of several months and all indications of the tumor had disappeared and the uterus and ovaries have resumed their normal position.

Case No. 14:

Mrs. N., age 36, a native of Kansas. Had been troubled with pain in the lower spine for a number of years, and had various kinds of menstrual disorders and nervousness since early womanhood. About three years before she consulted me she had undergone an operation for removal of the ovaries and uterus for fibroid tumor, to which she was told all her trouble was due. The operation failed to relieve her pains, however, and for relief her physician administered morphine until she became addicted to its use. After she was treated and cured of the morphine habit her aches and pains continued. She consulted a physician in this city in regard to her trouble and he referred her to me for electrical treatment. She told me that her symptoms were worse after the operation than before and as she had been mutilated with an operation I did not have a fair chance with her case because she was suffering to a great extent from the effects of the operation and, of course, I could not replace the extirpated organs. She had undergone an operation, had given up her vital organs, and her pain remained. I accepted her case on condition that she would be satisfied with whatever measure of relief I might be able to give her, if any relief at all, and she consented. I gave her daily treatment for two weeks and she told me that her pain had completely subsided. I consented to her leaving off treatment, but told her to make frequently reports for a while. I have heard from her several times since (within the last ten months) and she writes that she has not had any return of her former trouble and feels better than she has felt for several years.

In conclusion let me say that electricity is one of the most important and dependable branches of therapeutics. It is deserving of careful consideration and should not be held responsible for failures when it is improperly and unscientifically applied. I do not know of any other therapeutic measure that is so extensively used irrationally as electrification. Physicians, almost without an exception study the physiological action and dosage of medicine before they attempt to use them, but when they have patients who have been worn out with medicines, and who have undergone two or three operations and continue to live in spite of them (operations, medicines, etc.,) the doctor in a final attempt will procure some kind of a "battery" and "try electricity." Usually he has not studied electricity a single day but he uses it anyway and expects results. These batteries are generally useless when applied intelligently to say nothing of using them irrationally and ignorantly as they are generally used. When the proper kind of an electrical current is scientifically applied it will almost replace both medicine and surgical therapeutics. It will be found especially useful in the following classification of diseases: nervous diseases; diseases of women; special diseases of men; rectal diseases; skin diseases, cancer and tumors; constipation; stomach troubles; goiter; some throat and bronchial affections; and tubercular troubles; and some of the diseases of the kidneys and bladder; and rheumatism.

This does not mean that a small "fake" household battery will cure everything but some form of electrification will bring relief in a large proportion of cases and will forestall thousands of operations if given a chance. Grand Avenue Temple.

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Equal parts of glycerin and lactic acid removes moth and freckles.—Medical Summary.

Squill is especially valuable for old people with chronic bronchitis and scanty urine.—Medical Summary.

MISCELLANEOUS

OBSTETRICS.

By W. F. Briney, M. D., Chicago, Ill.

There is but little doubt that obstetrics is a much abused branch of medicine. In the first place a very large per cent of the work is done by midwives and much of the rest of the work is done by those who do not care for the work but have to do it in order to hold their practice and not appreciating the importance of the work or begruding the time necessary to see the case through without too much interference they have anything but results which a physician should be proud of.

The patient as well as many physicians do not appreciate the importance of midwifery. The patient often selects a physician because he is blessed with grey hairs or is married and believes that these are the chief qualification of the physician who does obstetrical work.

The physician is to blame for this condition of affairs. The patient should be given to understand that it is extremely important that she should place herself under the physician's observation just as soon as she becomes pregnant. She should be taught that her future health as well as the health of her future offspring depends upon the proper care of herself during pregnancy.

If the importance of these matters were impressed upon the minds of child bearing women they would gladly follow directions. But too often they are told by the physician that her aches and pain, her discomforts and her constipation are all to be expected. That they are the natural result of her condition and must be endured. Too often if any treaatment at all is given it is only palliative and not curative.

And again she is lead to believe that ill health is the natural result of childbirth when she should be taught that such dire results can be avoided.

While much of the suffering incident to childbirth is due to our false mode of living and is the result of many generations and cannot be corrected in a single lifetime, nevertheless we can do a great deal toward correcting many of the pathological conditions.

Take a pregnant woman who comes to you with a history that she is weak, hardly able to walk, cannot walk around the block without feeling tired. Her appetite is poor, she has distressing feeling, pains in the uteris, backache. She takes no interest in life and is cross and irritable. I had just such a woman. She came to me in labor the first time. Had an instrumental delivery and was left suffering after the birth and hardly able to do her work. The child lived only a few days.

The second pregnancy she reported to me at once I regulated her diet and relieved her constipation and put her on Mitchella and the evening before the birth of this child she walked with her husband until he was tired and wanted to go home.

During this pregnancy she did her own work, felt fine, no aches or pains, and was ready for a walk in the evening with her husband who was the one who had walked far enough. Labor was easy, natural and the baby a big bouncing fellow. Mother felt better, after labor, than ever before.

This is only one of a great many I might give. Another case and one which is here in the hospital now having been confined only a week ago. I did not see her in her first pregnancy and labor. First labor described as hard and child died in a few days.

She called me early in her first pregnancy and I found her laid up in bed with the piles. She was weak, frail

and neurasthenic. I put her on collepia (the only proprietary medicine I use) for her piles and although she was a constant sufferer from this complaint even when not pregnant, after two weeks' treatment she was not bothered again. For her constipation she was given prunes cooked in senna tea and sweetened to taste. Directions to eat as many as required to keep the bowels free. She was also given macrotys, mitchella and viburnum. She remarked how much better she felt than she did in her first pregnancy and her labor was normal and easy.

Every woman should have mitchella administered to them during the last three months of pregnancy. If given pregnancy will be relieved on many of the aches and pains, that despondent feeling incident to so many, the patient will feel stronger and will have a much easier labor and will be healthier after labor. Besides this she should have her diet carefully regulated. Her food should consist of meat once a day and a vegetable and fruit diet. With a properly regulated diet the bones of the child will be more flexible and labor will be easier, and this will leave a healthier mother better able to nurse and care for her offspring and the child will have better chances for life if not half killed during delivery.

As to twilight sleep which we see so much about lately. Certain hospitals are seeking to advertise themselves by exploiting this "new fad." It will go through its craze and find its place just as many other things are doing all the time. I have been using for many years the H. M. C. (Abbott) and would not be without it. However one must select their cases. It is not always indicated.

If you have a case in which the pains are severe and your patient is complaining and things are coming on them give your patient a dose of H. M. C. Or if you have a case in which the pains are nagging the patient is wearing out and no progress is made at all then give H. M. C. until your patient sleeps and when she starts in again usually she will make fairly good progress and will be grateful for the rest and you will be well repaid.

In other cases you will find severe pains with a cervix which will not relax. Often a dose of H. M. C. will do the work nicely.

Pituitrin is another drug which is finding its place. Many are reporting bad results. Some are claiming that it is a dangerous drug. In my hands I have found no bad results but have given it only when indicated. Have given it at times in connection with H. M. C. and have given it alone.

If the pains are making no progress I usually give a H. M. C. and give the woman a rest. If the pains are almost sufficient to deliver and the cervix is fully dilated give a dose of pituitrin and the extra boost that it gives will bring results. If the pains have ceased altogether do not give pituitrin but give H. M. C. and wait giving the woman a sleep in the meantime. Some call the action of pituitrin erratic but I have not found it so if given only when indicated.

In post-partum hemorrhage have used it with good results. In one case of retained placenta I saw pituitrin given with no results. In a case of retained placenta do not be in too great a hurry if there is no contraction at all wait until they return and then give a dose of pituitrin.

Do not get in too big a hurry to remove the placenta especially if it is after an abortion of say three or four months. You can easly wait for forty-eight hours and then by washing out with peroxide for the placenta following an abortion usually it will come away without using a curette.

AUTOTHERAPY.

By J. A. Burnett, M. D., Hartshorne, Okla.

There is a new therapy called autotherapy which is something similar to or along the line of vaccine therapy or treatment. Dr. Charles H. Duncan of New York City is the founder of autotherapy. Dr. Duncan says:

"Autotherapy as the name implies is self therapy or natural therapy; a name the writer has given to a method of treating disease with its own unaltered poison, and the very best method of treating many diseases."

Autotherapy is not applicable to all diseases but Dr. Duncan is gradually widening its application.

I will mention ten articles by Dr. Duncan for the benefit of the readers who may wish to know more about autotherapy.

(1) "A New Method of Vaccine Treatment and Prevention of Sepsis," Medical Record, Sept. 16, 1911; (2) "Gonorrhoea: Its Prevention and Cure by Autotherapy," Medical Record, March 30, 1912; (3) "Autotherapy," New York Medical Journal, Dec. 14, 1912, continued in Dec.21, 1912; (4) "The Cure of Sepsis," Homeopathic Recorder May 15, 1911; (5) "Autotherapy," Cincinnati Lancet Clinic, Nov. 4, 1911; (7) "Autogenous Virus in the Treatment of Sepsis," The Chironian, Nov., 1910; (8) "Cures and Recoveries in Sepsis," Journal of the American Instituted of Homeopathy, Oct. 1911; (9) "Intra Alimentary and Intra Pulmonary Diseases," Cleveland Medical and Surgical Reporter, Dec., 1912, and (10) "Autotherapy versus Operation," American Practitioner," July, 1913.

I have all the above named ten articles in my possession and if autotherapy will do what Dr. Duncan claims for it it is surely of value. I have urged Dr. Duncan to write a book on autotherapy.

In my article "Cancers and Therapeutic Lamps," April, 1912, Journal of Therapeutics and Dietetics I mentioned autotherapy and have received several letters asking about it and this is why I have give the above reference for the benefit of those who wish to investigate as a practical knowledge can be obtained from the above named article.

It is not my object to theorize or discuss the value or worthlessness of autotherapy in this article but to bring attention to it. There is one thing sure if autotherapy will do what Dr. Duncan claims for it vaccines, serums, etc., will go out of use and the price of many drugs will decline.

As far as I have investigated autotherapy clinically I am inclined to think there is something reliable in it.

HOW IT LOOKED TO ME.

By R. B. Hopkins, M. D., Milton, Del.

On one of my visits in the country I met a young married woman—not a patient of mine—who from her appearance was advanced in pregnancy. Having no acquaintance with her I did not suppose I would be called in attendance. On my way home I said to myself, "I pity the doctor who attends you." She was a little woman weighing ninety-eight pounds and appeared to be greatly disturbed. The incident I dismissed from my mind until one stormy night before Christmas the door bell rang and upon answering the call I was confronted by her husband. Upon arriving at her home labor had begun and the os dilated about the size of a silver dollar. After waiting several hours I found dilatation complete but the presenting part would not enter the strait. Previous to the last examination I had given her one full dose Waugh's H. C. M. This

greatly relieved her suffering. The hours of the night were long and morning dawned but the presenting point did not descend. Knowing I would need help I sent a messenger to the nearest phone to summon a physician. He returned stating he could not get a doctor although there were seven living in the town. The morning wore away and it was afternoon. There was not advancement, neither was there any help near. I sent the messenger again to request help from some friendly doctor. He was gone so long that I had almost despaired of receiving aid and decided to do what I could alone. I gave the patient chloroform and endeavored to apply the forceps. I succeeded in getting the blades adjusted to the head, but I could not get the handles to come together by several inches (I was using the Hodge forceps). I tied the handles together lightly with a towel and began traction. Finally they slipped off. I found however the head had come down a little. I reapplied them and succeeded in bringing labor into the second stage when they came off again. I decided to rest a while and wait for developments, withdrew the chloroform. Patient regained consciousness and anxiously asked if the baby was born. The hours had worn along until it was near dark. The pains were coming on strong, the labor remaining where I left it and the much needed help had not materialized. I took a ramble about the farm and thought to myself, Why had I chosen the practice of medicine as a profession? Why had I assumed such grave responsibilities when a living could have been made by easier means? Why had I not in the beginning of the case sent the patient to the nearest hospital where they could have performed section thus saving the life of this woman and child, and relieving me of this great responsibility? However these thoughts were not relieving the woman. If I could only get hold of one of those physicans for whom I had sent and who had refused to come I could fight him to a finish. "Fair weather thought I, never makes a good sailor—or does parade a brave soldier."

I returned to the house, placed my patient again under chloroform, applied the forceps and finally succeeded in delivering her of a ten pound living baby boy. There was a complete laceration of the perineum, which I immediately repaired. The patient soon came from under the influence of the anaesthetic and from all my experiences with tedious cases I never saw one who made (considering the gravity of the case) such a splendid recovery, absolutely no complications, the perineum united by first intention, and neither before or since have I seen a happier mother or a more healthier and robust child. But she is not anxious for another. Neither am I.

THOUGHTS ON PILES.

By J. A. Burnett, M. D., Hartshorne, Okla.

I do not know whether rectal specialists claim that piles occur most often in men or women. In my practice of over 10 years experience I have found piles more often in women. Occasionally some women have piles and think it is female complaint especially if the pile is not down low. Piles occur during pregnancy or if a woman has piles they often get worse during pregnancy. It is a well known fact that piles can be treated during pregnancy same as any other time and in my opinion all cases should be cured before confinement. During confinement piles are often very troublesome and give much pain both during labor and afterwards.

Possibly spondylotherapy would prove to be of much value in piles or aid other forms of treatment.

Electricity is of great value in piles and is capable of curing most any case if the physician is prepared for the treatment. Recently I found a local remedy that is of value in certain cases of piles which I will report later on.

This remedy has been used by one physician who says it is a specific and cures every case. We must not be too enthusiastic over remedies reported to be specific.

One of the most convenient ways of treating piles is by the injecting method. By the injection or hypodermic method I mean injecting medicine into the pile with a hypodermic syringe. There are two ways by the injecting method. One is to cause sloughing and one to cause absorption.

Various remedies are injected such as phenol, thuja, iodine, echinacea, geranium, as well as many others.

Each physician usually has his personal choice and that is usually what he gets in the habit of using first. My fee for treating piles is $25.00 in advance.

How many pile doctors who read this think it is enough or too much. Write me and tell me. I do not guarantee or insure to cure a case of piles or any other disease. I am not in insurance business. All a physician can do is to do the best he can and if a person don't think I will do the best I can for them I don't want them to come to me but go to some one they have more confidence in. I mention this because so many people will want a guarantee to cure and I always advise physicians to never guarantee anything. We must remember the law in most all states touches on this point and some patients that know this will often want a guaranee in order to trap the physician while others will want a guarantee to beat the bill. So my plans are best for all concerned.

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THOUGHTS ON HYPODERMIC MEDICATION.

By J. A. Burnett, M. D., Hartshorne, Okla.

A few weeks ago an habitual user of morphine came into my office. He used it hypodermically and used an ordinary medicne dropper for a hypodermic syringe. He took the ordinary hypodermic needle and a small piece of paper and slipped the needle on the end of the dropper using the paper as a washer to make it fit tight.

It is stated that hypodermic needles which have become useless on account of being clogged may be renewed by boiling in a solution of washing soda for a few minutes. This not only opens them up but brightens them as well.

One writer says:

"Many physicians fail when giving a hypodermic injection to remember the precaution after pushing the needle into the tissues of slightly retracting and then rotating it so as to free it from any blood vessel."

One writer in giving instructions for using a vaccine says:

"The skin at the point of injection should be scrubbed with soap and water and then rubbed with a five per cent carbolic solution. This disinfectant acts as a local anesthetic thus diminishing the pain of injection."

In my opinion the local use of anesthetics should be used before hypodermic injections more often than they are.

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Convulsions: Shoot a dose of apomorphine under the skin; the stomach will furnish the diagnosis, and another war is over.—Clinical Medicine.

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F. W. VAN KIRK. M. D., EDITOR
J. P. THORNE, M. D., ASSO. EDITOR
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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 17 DECEMBER, 1914 No. 12

Physicians have, and probably will always be a skeptical lot. When the germ theory was first exploited, how many were there who took any stock in it at all? Of later years it has been the serums and vaccines that have been looked at askance and I believe the lack of belief in these products is justifiable in many cases because they have been given out to the general man to use when he has not been prepared to administer them at the right time, in the right dosage, etc. and in getting no looked for result he has not much faith in them.

We are now beginning to get reliable information in regard to the results obtained when these serums and vaccines are administered correctly and in the right dosage. A recent article in one of the lay magazines tells how vaccines and antitoxins are being used in the present European war to combat smallpox, typhoid, tetanus, blood poisoning and cholera.

The work of administering these vaccines and antitoxins to the allied armies in the field is directed by Sir Aluroth Wright, the greatest living authority on vaccines and the work is being directed in the German army by equally well known scientists.

We are all familiar with the wonderful results obtained by vaccination against smallpox and still there are some who cannot see the light. We are beginning to see the results of using the typhoid vaccine in our own country. If we can obtain such marked results with the above two mentioned vaccines why cannot we hope to obtain equally brilliant results with the vaccines that are used to combat some of the other diseases. The remarkable results of using antitoxins in diphtheria are familiar to you all. If the use of pneumonia vaccine gives equally brilliant results as the above mentioned vaccines and antitoxins certainly the men who are still skeptical will, I am afraid be few and hard to find. It is all well and good to postpone accepting new ideas of treatment until they are proven of worth but when once so proven we should be only too glad to accept them at their full value.

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In summer fevers of undetermined cause give small repeated doses of aconitine.—Medical Summary.

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Subacute rheumatism: Aspirin 5 grains every 4 hours; after 2nd dose she had faintness, asthmatic breathing. turgidity of nasoparyngeal mucosa. nausea. Stimulants restored her in 4 hours.—Pons, Medical World.

ABSTRACTS

"MOTHERHOOD WITHOUT FEAR."

"A few months ago McClure's magazine announced to the prospective mothers of the country that a remarkable discovery had been made by which the pangs of child-birth were to be forever abolished. The announcement was made in the form of an article by two women, apparently of no medical training. The remarkable discovery was the long-discredited scopolamin-morphin analgesia, first suggested in 1902. This sensational article was taken advantage of by a pharmaceutic firm for free advertising of a nostrum, based on a similar formula; a number of physicians previously unknown brought themselves into newspaper prominence with naive statements regarding their ability in the use of the method and with reports of their success; a host of 'sob-writers' and sisters of the pen, whose work is tested by their ability to wring anguish from sympathetic hearts, filled columns of the daily press and magazines with pseudoscientific rubbish.

"And now when this sensation has about died out, we are supplied with another,' says The Journal of the American Medical Association. "This one is furnished by Mr. Vance Thompson, playwright and novelist; the medium is the Cosmopolitan magazine.

"As a composition, Mr. Thompson's article is fairly comparable with that of the two ladies who re-introduced 'twilight sleep' to American women; but for sentimental rot, for pseudoscientific rubbish, and for downright sob-writing Mr. Vance Thompson must be given the palm. In one place he says:

" 'I do not write of this discovery as being in an experimental stage. It has been accepted by the French Academy of Medicine—the date was the third week in July. Surgeons, gynecologists, chemists, doctors of all degrees have examined, tested, approved. For once scientific men have been unanimous.'

"There is no excuse for such false statements; even Mr. Thompson could easily have learned the facts.

"What are the facts? What is this 'detoxicated morphin' which, we are told, elimnates the pains of childbirth? Last July, Ribemont-Dessaignes reported to the Academy of Medicine of Paris a number of cases of childbirth in which he had used, for the relief of pain, a preparation discovered by a chemist named Paulin. The nature of the preparation was not disclosed to the academy. September 1, presumably as a result of the suggestion of Paulin, a request came to the academy from the Minister of War asking the opinion of the academy as to the advisability of using this remedy presented under the name 'Tocanalgine' and 'Antalgine,' in military hospitals as a substitute for morphin. By unanimous vote the academy declared that, the formula and composition of these medicines being unknown, it could give no opinion. Since it was stated, however, that the new drug was produced by the action of enzymes on morphin, the academy appointed a committee to investigate oxydimorphin, a chemical substance which it was known could be produced by the action of enzymes on morphin. Under the direction of the committee, two chemists examined samples of the new preparation obtained directly from the discoverer. The examination showed that these samples were variable, that they did not contain oxydimorphin, and the only active ingredient found by these chemists was morphin hydrochlorid, and this in quantities varying from 0.05 to 4 per cent. The conclusions of these two chemists were later emphasized by Bertrand who, after careful chemical and biologic tests of samples submitted to him,

found that the solid residue was exclusively formed of hydrochlorid of morphin, and that it was fully as toxic and dangerous as morphin, as might be expected; the symptoms of poisoning were exactly the same as those of morphin hydrochloride, and death occurred after the same interval. A dose of the preparation would give about ½ grain of morphin. In other words, judging from the reports which appeared in the Journal de pharmacie et de chimie for November 16, and the Bulletin de l'Academie de medicine from July 21 to November 17; this so-called 'detoxicated' morphin is essentially a solution of morphin in ampules. It will kill just as quickly as morphin, it will relieve pain just as quickly as morphin—because it is morphin. Naturally the Academy of Medicine of Paris has not accepted the preparation.

"We presume it is useless to protest against this shameless exploitation of the fears of prospective mothers of the country. But if magazines must have articles on this subject, let them at least confine themselves to the facts. The article in the Cosmopolitan is cruel, sensational and a disgrace even to yellow journalism."

ANTISTREPTOCOCCUS SERUM IN ARTHRITIS.

H. K. Nicoll, Chicago (Journal A. M. A., Dec. 19, 1914), reports experience with a polyvalent antistreptococcus serum in the treatment of twenty patients suffering from chronic arthritis in the Presbyterian Hospital Chicago. The cases were all polyarticular and the evidence favored their streptococcal origin. At first the serum was used unheated, but afterward it was heated to 50 C. for ten hours and afterward concentrated by a modified Banzhaf method to lessen the mass of each injection. A maximum dose of the concentrated serum was not more than 12 c.c. It was usually administered subcutaneously in the interscapular region, every effort being made to avoid a vein. In every case vaccines were used in conjunction with the serum, and, if possible, were autogenous from the apparent site in infection. They were prepared in the usual manner and given in doses of from 50 to 200 millions at six to eight day intervals. The immediate results of the serum injections were a sharp rise in the specific streptococcic opsonins and the clinical symptoms of serum-sickness. At no time was there any special relief observed of the patient's pain and disability. The chief discomforts caused were from the urticaria, which was very severe at times. Five of the patients developed rather marked sumptoms of anaphylactic shock, in four cases so severe as apparently to endanger life. One patient suffered most severely, and during the first attack the respirations and pulse were entirely absent for a short period. The symptoms came on in all cases from one-half to three minutes after the injection and varied greatly in degree in the different patients. Following the attacks the patients complained of general malaise and weakness, and often a severe headache. The opsonins were greatly lowered after the attack. The general results of the treatment are difficult to estimate, on account of the other remedies used, and the patients were not improved as compared with other patients not thus treated. Nicoll concludes that: 1. The administration of horse serum in repeated doses may be followed in 25 per cent. of the cases by dangerous degrees of anaphylaxis, even in patients who give no history of previous use of horse serum or of asthmatic symptoms. 2. Heating and ageing the serum does not completely remove its toxicity. 3. Clinical observation and the estimation of immune bodies do not show any added advantage from the use of an antiserum in chronic arthritis, even when a concentrated serum with much greater potency than the usual

commercial serums was employed. In two case acute staphylococcus infections arose during and in spite of its administration. 4. Attempts to increase the value of such a serum by concentration have not been successful, so far as its employment in chronic arthritis cases is concerned. Whether or not such concentrated serum might have advantages in acute streptococcus infection has not been determined. 5. In view of these facts the use of antistreptococcus serum in the treatment of chronic arthritis is, under present conditions, neither advisable nor justifiable.

DELIRIUM TREMENS.

After describing the appearances and behavior of the lipoids in the adrenal cortex, E. F. Hirsch, Chicago (Journal A. M. A., Dec. 19, 1914), says that in examining the bodies of persons dying from delirium tremens Dr. E. R. Le Count found alterations so regularly in the cortex of the adrenals that he was led to seek the reason for the changes. The obvious changes consist in a more or less striking dimuition of the yellow color of the normal cortex. In very marked instances a reddish brown color is assumed, with only occasional irregularly distributed areas of yellow, or there may seem to be entire absence of that color. The glands were removed, the fat dissected away and then fixed in a 10 per cent dilution of liquor formaldehyde, and after a few days the transverse segments were frozen and sectioned. As controls for this work, the adrenals from persons meeting sudden death were used and sections prepared the same way. The adrenals from thirty-four persons dying from delirium tremens were compared with the controls, and in practically every instance the doubly refractive droplets in the delirium tremens adrenals were diminished slightly, moderately, markedly, very markedly, and sometimes entirely absent in a given area. These are shown in tabulated form, with the notes in regard to the complicating conditions in the patient. Further evidence that the cholesterol content of the adrenals was diminished was found by quantitative chemical examination, and the method used is described and the results tabulated. The physiologic functions of the adrenalins, according to Landau, are not concerned with lipoid formation, but the adrenalin cortex contains an increased lipoid content under various conditions having in common only this retention of the lipoids, or they are characterized by abnormal increased lipoid formation, the opposite holding true in conditions accompanied by a lipoid-poor cortex. The variations of the lipoid content are to be considered as secondary to changes in that of the body or that of the individual organs. With certain limitations, such as inanition or infections, the choleresterol esters behave themselves like the total lipoid content of the adrenals into which they are probably carried and stored up "Inasmuch as acute toxic processes in general are associated with a diminuition of the double refractive lipoids of the adrenals, the inference lies close that in delirium tremens the body is flooded by some acute toxic substance, the nature and origin of which is purely hypothetic at present That something more than the alcohol itself is concerned in producing these changes is derived from the repeated examination of adrenals removed from the bodies of chronic alcoholics without delirium tremens, in which the alterations described were present."

SERUM TREATMENT OF PSORIASIS.

After noticing the recent literature in regard to the treatment of obstinate skin affections by human serums, Howard Fox, New York (Journal A. M. A., Dec. 19, 1914), gives his own experience

with autogenous serum treatment in psoriasis. The patients numbered twenty-eight, seventeen females and eleven males, ranging in age from 11 to 54 years. All the different forms of the disease and all grades of severity were included. In all except one case at least three injections of serum were given at an average interval of three to five days, and this was immediately followed by the local use of a 10 per cent chrysarobin ointment, the action of which was increased in some by covering the skin with a rubber cloth. The results of the treatment in general were very satisfactory, and in some cases brilliant, and the patients benefited were enthusiastic in regard to it. Vigorous chrysarobin treatment had failed in some of the cases. No ill effects from the treatment were observed. The technic was simple. Fox says: "My own plan has consisted in each sitting in drawing 50 c. c. of blood from the cubital vein, by means of a MacRae needle, into a sterile cylindrical glass bottle. The bottle and its contents were then properly balanced and placed in an electric centrifuge having a speed of eighteen hundred or more revolutions a minute. When the serum was thoroughly separated from the corpuscles and fibrin it was drawn off into a glass springe and injected, without delay, either intravenously or intramuscularly. The amount of serum that was generally obtained from the 50 c. c. of blood varied between 15 and 25 c. c., the latter being the maximum. In every case the serum was injected in an active state. As a rule the entire procedure of drawing the blood and injecting the serum was completed in half an hour or less. He does not attempt to definitely explain the action of human serum but offers the following as his conclusions: "1. Autogenous serum, when used alone, does not appear to be of value in the treatment of psoriasis. 2. It is of decided value in many cases when used in conjunction with chrysarobin. Obstinate cases of psoriasis that have long resisted vigorous treatment with chysarobin ointment will often yield to this remedy when injections of autogenous serum are given. 3. Intravenous injections of autogenous serum if properly given, are entirely devoid of danger. 4. The technic of preparing the serum and giving the injections is comparatively simple.

MALARIA AND THE PUERPERIUM.

After noticing the facts in regard to the relations of malaria and the puerperal condition, as noticed by physicians in the tropics and elsewhere, M. J. Seifert, Chicago (Journal A. M. A., Dec. 19, 1914), reports the case of a woman, aged 25, who had never lived in a strictly malarial region, or suspected malarial infection, who suffered from irregular chills and fever in two consecutive confinements, and never at any other time, with no pelvic involvement and with positive microscopic findings of the tertian parasite in her second confinement, which, he says, is worthy of attention. She had also suffered from chronic nephritis, and malaria was only diagnosed, or sought for in the diagnosis, until almost every other possible disease had been excluded. The most important part of this paper, as he says, is the lesson to be learned in regard to the need of thoroughness of diagnosis. Another unusual experience in the case was some late gonorrheal complications, lochial discharges and pelvic tenderness, occurring thirty days after labor, long a ter other conditions were normal. The whole complex was a confusing one and emphasizes the fact that all cases of fever after childbirth are not necessarily puerperal septicemia.

Goodman used to say that the treatment of cystitis requires the three A's —Attitude, Alkalies and Anodynes.

THE DOCTOR'S LIBRARY

THE BACKWARD BABY. A Treatise on Idiocy and the Allied Mental Deficiencies in Infancy and Childhood. By Herman B. Sheffield, M. D., New York. Rebman Company, Herald Squart Bldg. 1915. Cloth, $1.00.

This is the Prize Essay that won the Alvarenga Prize of the College of Physicians of Philadelphia, July 4, 1914.

It covers the etiology, pathology, diagnosis and treatment of the mental deficiencies of children under five years of age. It is especially valuable for the large amount of personal observations that it contains. While the author has reviewed the literature on the subject, he has so woven his personal experience into the work that it gives the last word on the subject in the most condensed and readable form. The Rebman Company are to be congratulated on the number of monographs they are publishing and the high standard of the same.

Dr. Sheffield had something to say, and he has said it in an especially pleasing manner. We know of no other work on the subject that is so well fitted to the demands of the physician or to the laity for that matter. The price is very low, considering the quality of the work, and the size of the book.

It contains twenty-two original illustrations in the text; one hundred and eighty-four pages, and is well bound in cloth.

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THE SALVARSAN TREATMENT OF SYPHILIS IN PRIVATE PRACTICE. By George Stopford-Taylor M. D., and Robert William Mackenna, M. D. Physicians to the Liverpool Skin Hospital. New York. Rebman Company. 1915. Cloth, $1.50.

This is another of the valuable monographs the Rebman Company are putting out. It is an optimistic work. It gives the personal experience of the authors and contains eighteen original illustrations showing results of the treatment at their hands. This is just the book for the general practitioner who desires to be in a position to give this treatment in the proper manner. It contains all the essentials of the technique—in fact all that is really worth while in regard to the salvarsan treatment of syphilis.

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THE POCKET FORMULARY for the Treatment of Disease in Children. By Ludwig Freyberger, J. P. M. D., etc. Fourth Revised Edition. New York. Rebman Company. Leather, round corners, $2.00.

It has been the desire of the editor of this department to give the facts regarding each book reviewed, so that the intending purchaser could depend upon the statements made. It is the editor's desire to tell the truth about each book. We want our subscribers to have faith in the statements made herein. I mention this for the reason that here is one book which I am sorry to say I cannot recommend. I have written many very strong reviews of the Rebman publications, and I consider their works the cream of medical books in most cases. This is an English work, based upon the British Pharmacopoeia. The contents consist of the name of a drug in black face type, followed by its Therapeutics, Dose, Correction of taste or incompatables and one to four formula in which the drug is named. These are mostly "shot-gun" prescriptions. It is hardly conceivable that any educated physician would care for these ready made prescriptions.

It is a very pretty little book of 260 pages, and the mechanical work is of

the high standard for which the Rebman's are noted.

♣ ♣ ♣

COXITIS.

Three cases of coxitis in which there was an apparently relationship between faulty posture or intestinal derangements and coxitis, the discovery of which relationship rendered needless any prolonged local treatment, are reported by R. B. Osgood, Boston, Boston (Journal A. M. A., Dec. 19, 1914). It is possible he says, that if the experience of others coincides with his, the physician can be saved much anxiety and some families be spared the distress which a diagnosis of tuberculosis gives, and the patient saved a prolonged and irksome treatment. No definite conclusions, he says, can be drawn from so small a number of cases. They seem to indicate the importance of a careful history, a search for possible causes for a possible toxemia, a von Pirquet test and possible tuberculin tests with Koch's old tuberculin for a local reaction if the skin test is possible, a provisional diagnosis at the first visit and the withholding of radical treatment other than recumbency until the diagnosis can be confirmed.

♣ ♣ ♣

The October Woman's Home Companion has a department called "The Exchane"—a department full of helpful ideas contributed by readers for the benefit of others. A Massachusetts woman makes the following suggestion:

"A friend of mine, who has three hungry boys of different ages who come home from school clamoring for 'something to eat,' has devised this scheme to keep them out of the pantry: She has three boxes plainly lettered with their names, and after luncheon she fills each with whatever is best for that particular boy."

LIFE'S SCROLL.

In the strength of a noble manhood,
In the dawn of a useful life,
In the Sowing-time and harvest—
Impress the deeds of a noble soul,
On Honor's scroll.

When Hades vomits malignant spume,
In an avalanche of hate and crime,
Let Valor ride on the waves of time,
And write one name on the cleanest page
Of History's scroll.

When darkness comes in the noon of day,
And slanders, mean and cold and damned,
Would pierce your heart with venomned
shaft,
(As often they have done to mine),
Just write the name of one calm soul—
On Love's bright scroll.

When friends are faithless, steeped in sin,
Fearing to let the truth creep in
To warm some spot in a frozen heart—
Just carve the name of a loving soul,
On Time's bright scroll.

When the blighting storm of life has past,
And the cold north wind has ceased, at
last,
To pierce your life with its chilly blast—
You may write the name of one saved soul,
On Heaven's scroll.

O, then, on the wings of the morning,
Send a message of truth and of love,
As a message that comes from above—
Or 'scribe the name of one LOST soul
On Midnight's scroll.

"Peace on earth, good will to men."
(I wonder where. I wonder when.)
Where Christian daggers bathe in blood,
And swell the ever rising flood
That 'graves the names of more lost souls,
On Satan's scrolls?

♣ ♣ ♣

For prostatitis, inject into the prostatic urethra a few drops of a mixture consisting if europhen 30 grains and pure fluid petrolatum one ounce. It does no harm, but good if it gets into the bladder. Repeat every day, giving arbutin persistently.

Vol. XVII. JANUARY, 1914 No. 1

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F. W. VANKIRK, M. D.
EDITOR

J. P. THORNE, M. D.
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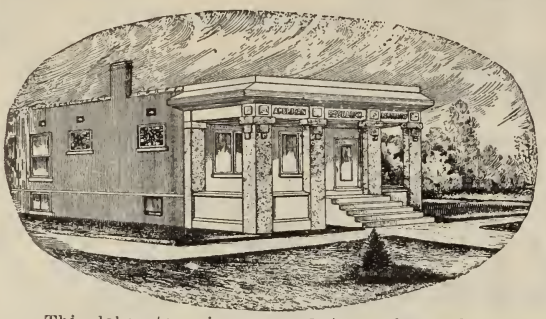

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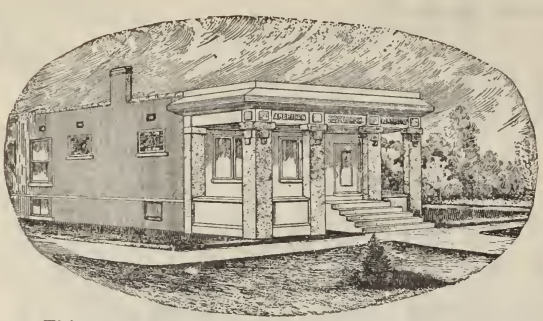

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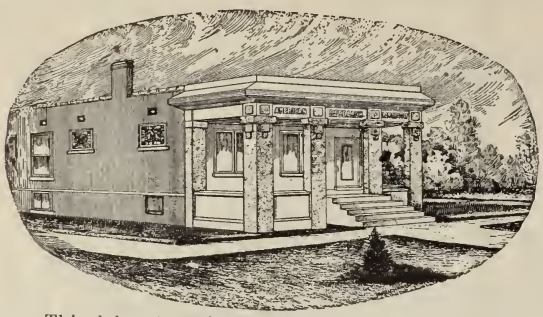

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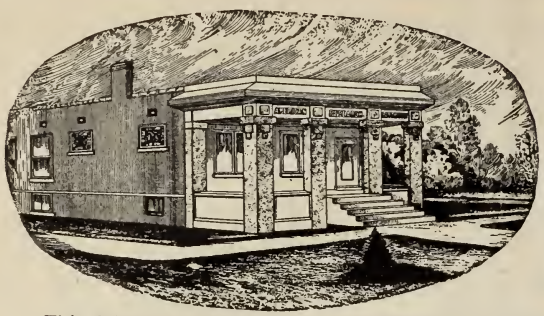

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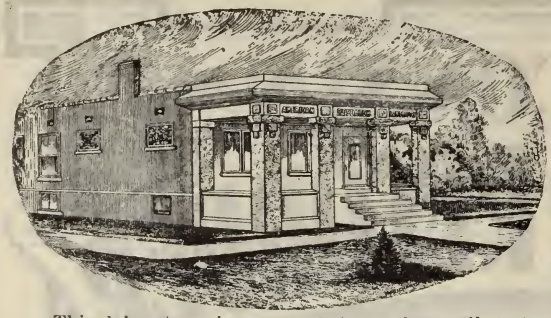

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Entered at the postoffice at Jan Wis., as second class matter, January 31, 1898

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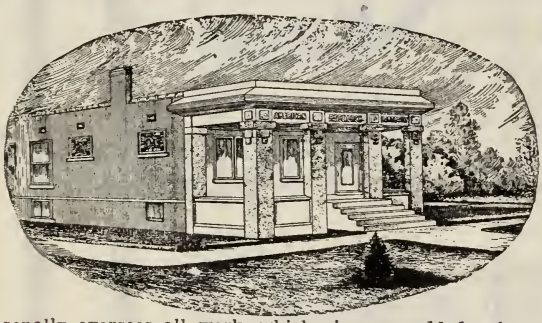

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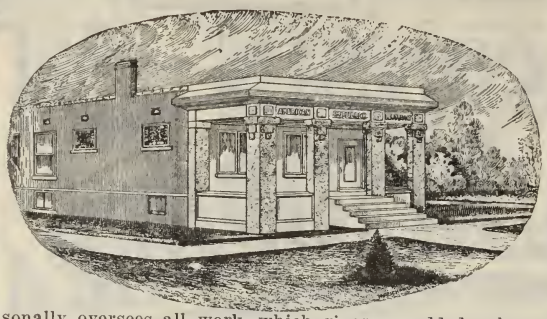

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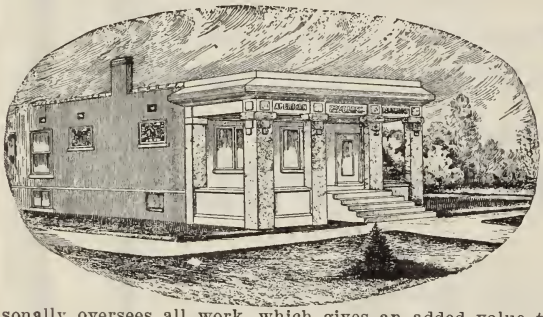

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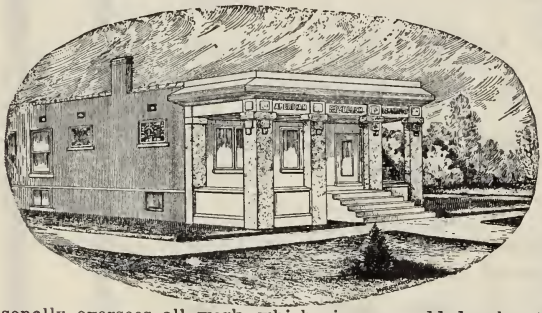

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